

AMERICAN

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AVIATION

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SERIAL RECORD

New York Airways Picks Rotodynes • AOC Says Stop Expanding Runways
Jet Engine Experience Accumulates • New Pay Plan for Local Carriers

New look in a jet . . .

Douglas DC-8 takes off



TOP FROM LEFT: LOCKHEED ELECTRA, BRISTOL BRITANNIA, VICKERS-ARMSTRONG VANGUARD. MIDDLE: BOEING 707, FOKKER/FAIRCHILD FRIENDSHIP, CONVAIR 880. BOTTOM: DE HAVILLAND COMET, DOUGLAS DC-8, SUD AVIATION CARAVELLE.



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SUBSCRIPTION RATES

Single copies—\$1.00. For U.S. and Canada—\$10.00 for 1 year. Other countries—\$15.00 for 1 year. Subscriptions limited to aviation industry personnel.

INCORPORATES

Airports and Air Carriers; Aviation Equipment; The American Pilot; Aviation Sales & Services; U.S. Aviation; American Airports and Airports & Helicopters. All rights to these names are reserved.

CHANGE OF ADDRESS

Send old address (exactly as it appears on mailing label on your copy of magazine) and new address, including zone number if any to American Aviation, 201 Vermont Avenue, N.W., Washington 5, D.C. Allow two weeks for change.

PUBLISHING INFORMATION

Published every other Monday by American Aviation Publications, Inc., Washington, D.C. Printed at The Telegraph Press, Harrisburg, Pa. Accepted as controlled circulation publication at Washington, D.C. and Harrisburg, Pa. Copyright © 1959, American Aviation Publications, Inc.

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On the Cover

DC-8, latest in the famed line of Douglas transports, is shown climbing out for a test flight. This second version of the airplane is equipped with Pratt & Whitney JT4A engines, instead of the JT3Cs on ship number one. DC-8 will carry 135 passengers, with a gross takeoff weight of 265,000 lbs.

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Lockheed's turboprop Electra: Performance-proved for 8 key military missions

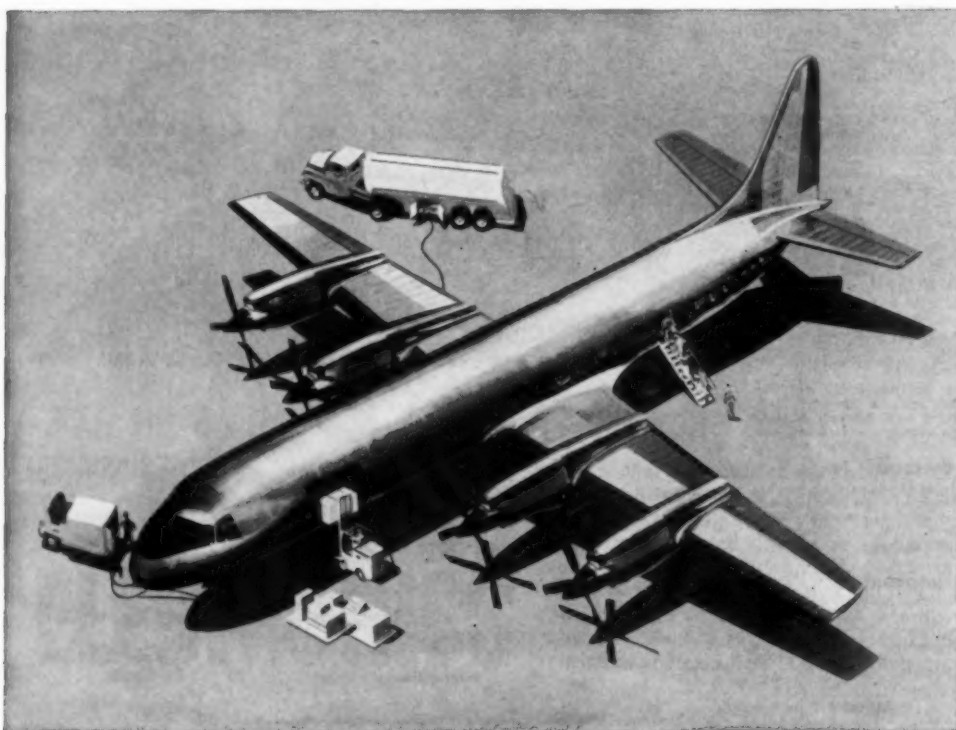
During its recent headline-making 52,000-mile tour—of the United States, Canada, Europe, Asia, and the Middle East—Lockheed's new turboprop ELECTRA airliner dramatically demonstrated its amazing performance capabilities.

Seasoned pilots were astonished by the ELECTRA's short takeoffs and landings—especially its safe, sure stops on rain-slick runways. Over the Alps, with two engines purposely cut and one prop at zero thrust, the ELECTRA cruised on only *one* engine. Taking off at 115,000 pounds gross weight, the ELECTRA flew non-stop 3220 miles

from Istanbul, Turkey to New Delhi, India—in a record breaking 7 hours, 55 minutes.

The ELECTRA's proven performance, safety, ease of maintenance, and economy of operation qualify it in every essential to fill the Armed Forces' requirements for eight new Jet Age aircraft, each performing a different key mission.

Because ELECTRA airliners will be in service for airlines throughout the world, emergency service and parts for military ELECTRAS will be readily available worldwide. Result: optimum global utilization of USAF and Navy ELECTRAS—at minimum costs for parts inventories and service.



Completely self-sufficient, the ELECTRA can land at out-of-the-way airports and remote landing strips—because it has its own engine starters and ground air-conditioning, plus built-in passenger stairs. Passenger/cargo loading, refueling, and servicing of the ELECTRA can all be done simultaneously.

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CAB's Abortive "Police Tactics"

An extraordinary incident with all of the repulsive atmospherics of a police state took place in Washington on March 11. It gave everyone involved a jolt to think that "it can happen here."

At 3 p.m. on that date the Civil Aeronautics Board issued an order instituting a sweeping inspection and review of the Air Transport Association. As part of the investigation the CAB asked ATA to open its files on virtually everything in its offices from budgets and resolutions to agreements and board minutes. The scope left nothing to the imagination.

The inquiry order itself wasn't quite so overwhelming and significant, however, as how ATA learned of it and what happened.

At 3 p.m. while CAB was making public copies of its order at its offices, four CAB staff members showed up in the offices of the ATA and asked to be received immediately by the president, Stuart G. Tipton. When told that Mr. Tipton was busy in conference, the sleuths demanded immediate attention.

Having no intimation of what the official call was all about, Mr. Tipton concluded his conference. In came the four CAB agents with a copy of the order and asked Mr. Tipton to read a couple of points, then announced that they were ready right then to begin going through ATA files.

When Mr. Tipton suggested that perhaps he might like to read the order first, the CAB sleuths appeared to be adamant that they go into action right away, but agreed reluctantly to give Mr. Tipton time to read the order and call in his staff for a brief meeting. The sleuths retired to a waiting room but not for long. In a short time they were back.

Only then did Mr. Tipton begin wondering whether he was living in a police state or in Washington and proceeded to give the CAB amateurs a little lecture. He suggested that they depart the premises and come back at 9 a.m. at which time they would be given room and other facilities and access to all the organization files since ATA had nothing to hide. So the agents finally retired from the premises.

Extraordinary is hardly the word for such action. The saving grace in the whole incident is that somebody in CAB goofed and was not following instructions. CAB members, especially including Chairman Durfee, had no knowledge of the provocative police state "raid" until later. And within hours all of the higher parties involved directly or indirectly wanted to forget the blunder. They would prefer that it had never happened.

But it *did* happen and one wonders what kind of rearing and training those four CAB agents have had that they would engage in tactics on which police states are built. And who in CAB *did* authorize or countenance their action?

As for the CAB investigation of ATA, it hardly calls for a "bombshell" approach. Is this retaliation for ATA's criticism of CAB activities and actions?

Is it a "get even" deal by the staff? Since ATA has nothing to hide, and in fact files a vast amount of data with CAB anyway, the inquiry would seem to be a great deal of smoke in search of a tiny fire.

Prelude to AIRLIFT

This is the last issue of this magazine under the name AMERICAN AVIATION. To many of our readers this may seem like losing an old friend. But to us in AAP, the change of name to AIRLIFT starting in April is the beginning of a new and exciting chapter in the progress of the air.

Since our first issue June 1, 1937, every magazine in the field has changed its name at least once. Some have had as many as three or four changes. In an area of activity as fast-moving as aviation, the wonder is not that we are changing so much as the fact that we are just now doing so.

When AMERICAN AVIATION was launched the DC-3 was in service as the finest and fastest on the main trunk routes only. Military aircraft speeds were still in the 200 mph and 300 mph brackets. The entire aviation enterprise was still struggling and the crusading airmen in uniform were fighting a tough battle for existence as part of the ground-minded Army.

Twenty-two years is a long time ago in the air. The DC-3 has been superseded many times over while military progress is only too well known. With the formal inauguration of the jet age commercially, the entire civil area takes on vast horizons of growth.

The word AIRLIFT explains precisely our future concept—transportation by air. People and goods. And by all kinds of aircraft, fixed-wing and rotary. Scheduled, nonscheduled, cargo, business, military. In the headlong rush for missile and space development, the vast enterprise engaged in transportation of people and goods by air has been subordinated in attention. We propose to make this our sole order of business.

So the change of name is a streamlining, a modernizing, and a facelifting, to keep up with the times. All of the basic features of the magazine remain, but more are being added. In addition, we are going to a monthly frequency in the belief that in these days when there is so much to read we can do a better editorial and presentation job—in depth and scope—than on the old every-other-week basis.

So instead of an April 6, AMERICAN AVIATION, you will receive an April AIRLIFT. Coming in May will be our annual air transport issue, bigger and better than ever. For us we are far from closing an era—we are opening a new one with the horizons unlimited. We think you'll like to be along with us.

Wayne W. Parish



There's a new kind of airplane ahead for America's new generation of pilots

Gramp raced through the skies at nearly 100 miles an hour. He flew his fabric-covered biplane by the seat of his pants and the wind in his face.

Some twenty years later, his son flew a P-51 Mustang at better than 400 mph...later on flew a Sabre Jet that approached the speed of sound. There were more dials to watch, more controls to work, till he wondered if airplane designers hadn't reached the limit of human capacity.

Today's Air Force pilots can look forward to piloting a new kind of airplane. It will fly more than 2,000 miles an hour...carry an electronic crew to navigate, find targets, fire weapons, evade attack. Most significantly, its pilot will have as much time as Gramp did to do what man does best: make decisions.

For though machines can see farther, figure faster, and react quicker than men, they cannot cope with the unexpected—nor can they be recalled or redirected. That is why America needs the judgment of men as well as the automatic deadliness of missiles. Her deterrent power will always depend on building the most advanced manned and unmanned weapon systems—and keeping them ready for action.

Three times the speed of sound

North American is now at work on two Mach 3 airplanes for tomorrow's Air Force—the B-70 bomber for the Strategic Air Command and the F-108 interceptor for the Air Defense Command.

The B-70 will skirt the edge of Space to any target

on earth—*flying every mile of the way at more than 2000 mph.* It will carry the most advanced weapons, including missiles it can launch hundreds of miles from ground defenses or primary targets—plus countermeasures against enemy attack.

The F-108 will be able to detect and identify incoming airborne weapons—manned or unmanned—over 1000 miles from our shores...and destroy them.

These manned weapon systems will give true depth and flexibility to our nation's deterrent power.

Mobilizing America's best for the job

North American, as weapon system manager for the B-70 and F-108, has been charged with complete scientific, engineering, and administrative responsibility. To enlist the best brains and specialized skills of American industry, North American has divided each airplane into major subsystems, which are being awarded to the contractors best qualified to handle them.

Though these projects are among the most important ever entrusted to one company, North American's knack for turning revolutionary concepts into revolutionary airplanes is a matter of record. Time and again, North American's designers and engineers have exceeded expected performance—yet made the new airplane practical to build, fly, maintain. This sure hand—result of building more aircraft than any other company in the world—has created more air power for fewer tax dollars.

THESE FAMOUS AIRPLANES WERE READY WHEN AMERICA NEEDED THEM



Subsonic P-51 Mustang—did
alliant service in World War II.



Transonic F-86 Sabre Jet—drove
the MIGs from the skies of Korea.



Supersonic F-100 Super Sabre—
mainstay of the Free World's
fighter strength.



Hypersonic X-15—soon to carry
the first American to
the fringes of space.

THE LOS ANGELES DIVISION OF NORTH AMERICAN AVIATION, INC.



AMERICAN AVIATION PUBLICATIONS

ANNOUNCES



airlift

the magazine of world air transportation

Beginning in April, AMERICAN AVIATION Magazine becomes **airlift**—the monthly magazine serving the world air transportation market. This is not only a change in title but an updating of editorial concept brought about by the evolution within the air age itself. **airlift** is edited for the worldwide commercial, military and corporate Air Transportation Industry. Feature articles are designed to interpret trends and developments. They highlight new products and equipment, operations, maintenance, communications, and engineering. **airlift** offers editorial coverage of *all* phases of the market concerned with transportation of people and goods by air.

Airlift—A Multi-Billion Dollar Market. With 25,000 circulation, **airlift** reaches men in management, engineering, operations, maintenance, overhaul and

purchasing, in *all* segments of the Air Transportation market. This includes both domestic and international air carriers, supplemental and all-cargo carriers, military transport and logistics, airways and navigational facilities. Also business aircraft, terminal airports, helicopters and fixed base operators.

Airlift—Another "Market of the Future". **airlift** is a specialized magazine for a specialized market—world air transportation. It is not concerned with combat aircraft and weapons systems. Military interests aside from airlift are served by **MISSILES AND ROCKETS**, and **ARMED FORCES MANAGEMENT**—other American Aviation Publications serving "markets of the future" Sell the world air transportation market in **airlift** No other magazine serves this market directly.

airlift, v.t. to transport by air.



airlift

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New York Airways To Buy Rotodynes

- VTOL Deal Is Big Stroke for Fairey Aviation
- Carrier Seeks Permanent Route Certificate
- Two Actions Have Deep Industry Impact

By Bill Combs
Engineering Editor

New York Airways took one of the biggest plunges in its history this month when it simultaneously announced its intention to buy five Rotodyne VTOL aircraft from England's Fairey Aviation Co. and also appealed to the Civil Aeronautics Board for a permanent certificate which would greatly broaden its scope of operations.

The actions could have serious impact in the industry. NYA backed up its Rotodyne proposal with a letter of intent and a down payment of an undisclosed sum to Fairey. This is the first U.S. order the manufacturer has received for this transport and along with the Viscount and the Riddle Airlines Argosy would give the British another foothold in the American market. This is a position the United Kingdom has never before enjoyed.

A further implication is that Kaman Helicopter Corp. will proceed with new impetus for its plans to manufacture and market the Rotodyne under license in this country. NYA's order amounts to \$10 million for the five aircraft and option was taken on an additional fifteen. First delivery was set for 1964. All of these would be built in England under present plans and Kaman would build any others sold in this country. Kaman would also provide engineering liaison and spares to U.S. customers.

First airplane to be delivered to NYA will be No. 8 off the production line. British European Airways is due to get the first six and Okanagan Helicopters Ltd. of Canada is to get No. 7.

Rotodynes received by NYA will be powered by 5,250 shp Rolls-Royce Tyne instead of the 2,800 shp Napier Eland engines used in the prototype. The more powerful engines will increase the gross takeoff weight from 32,000 lbs. to 50,000 lbs.

The present Rotodyne holds the closed-course helicopter speed record

of 191 mph, and it is thought that with the Tyne engines and a re-designed rotor system, the cruising speed will eventually go as high as 240 mph.

The announcement of the Rotodyne order was the second shot in a two-barreled firing. The previous day in Washington, financial consultant Selig Altschul presented NYA's case to CAB, saying that the permanent certificate was required for the financing of the new equipment and for expansion of the company's route structure.

Altschul said the unrealistic character of the temporary certificate applied to NYA is highlighted by the fact that while the company's operating franchise technically expired in March, 1957, the Board saw fit to guarantee a \$1 million loan to NYA more than a year later. CAB has also set permanent mail rates for NYA, which like the loan guaranty, extends until 1963.

Further, Altschul stated that NYA does a larger volume of business than its two counterparts—Chicago Helicopter Airways and Los Angeles Airways—combined. Since beginning passenger operation in 1953, NYA has

had an average annual increase in airport passenger volume of 95%, compared to a yearly increase in total airline traffic of only 9.33%.

Direct service, as offered by NYA, has the greatest hope of bringing low cost transportation to the public and the Post Office, Altschul went on to say.

Operating advantages of the Rotodyne as compared with current helicopters make it ideal for this type of service. Its higher speed and greater carrying capacity and its all-weather flying potential overcome the main drawbacks of present-day rotary-wing aircraft.

With the Rotodyne, NYA also hopes to expand its operations into the short-haul market of the New York Metropolitan Area now being served by fixed-wing aircraft. NYA says the greater time spent in the traffic patterns and taxiing makes the conventional airplane unattractive for the 50- to 100-mile hops now being performed by feeder airlines.

The Rotodyne offers several other advantages in the short-haul range spectrum. On a 50-mile hop, present



NEW YORK AIRWAYS has laid the chips on the line by placing orders for five Fairey Rotodynes, pictured above with the carrier's identification. The VTOLs will be used in NYA's proposed route expansion program.

seat-mile costs range from 2.85¢ for a DC-3 to 6.03¢ for the Rda-7 version of the F-27. Although on a 50-mile run, the 65-passenger version of the Rotodyne would have a slightly higher seat-mile cost than say an F-27, but when surface transportation charges are included, total costs would come to about \$6.20 per passenger in a Rotodyne, compared with around \$8.50 in the 44-passenger F-27.

In projecting operating costs into the 100-mile sector, the Rotodyne is still economically ahead, though this edge is lost when stage lengths of 150 to 200 miles are reached. The higher costs and the resultant higher fares, of the longer runs are largely made up, however, when passenger savings in ground transportation and time are considered, NYA says.

New York Airways advertises itself as the world's first regularly scheduled passenger helicopter airline. In 1958 the carrier flew more than 90,000 passengers and is expected to fly well over 100,000 during the current year. It introduced the 15-passenger Vertol helicopter into its operation in June of 1958 and late in July all five of the Vertol fleet were in scheduled service. Since NYA first began passenger operations in 1953, more than 237,000

passengers have been carried. President Robert L. Cummings, Jr. points out that these figures show conclusively the necessity for a permanent certificate.

Sale Spurs Interest

Army and Feeder Lines Find Fairey VTOL Tempting

Though New York Airways is the first organization in this country to make definite commitments to buy the Fairey Rotodyne, the aircraft's unique design has created interest on the part of the Army and a number of feeder airlines.

Designed to meet the need for a high-lift VTOL, the Rotodyne can carry 56-70 passengers at seat-mile costs lower than current helicopters and comparable to fixed-wing turbine airplanes.

Early this year, the Rotodyne exceeded the world rotary-wing speed record by nearly 50 mph, flying a 62-mile closed course at an average of 191 mph. The prototype used in this run was powered by Napier Eland turboprops, set at cruise power. Production Rotodynes will have Rolls-Royce Tyne engines, rated at 5,250 shp, which will increase the gross

takeoff weight from 33,000 lbs. to 50,000 lbs.

High speeds of the Rotodyne are largely due to the wing and rotor system. During vertical flight, tip jets drive the 90 ft. rotor, but in forward flight they are turned off, leaving the rotor to autorotate.

In cruising flight, about 70% of the lift comes from the wings, and control shifts from helicopter-type to conventional stick-and-rudder. The rotor free-wheels with the disk plane tilted rearwards, thus eliminating the stall and vibration associated with forward-tilting, cycled helicopter rotors.

The simplified rotor cuts the amount of maintenance usually encountered in helicopters. Tip jets are the only mechanical drive, and there is no gearbox or central drive shaft to wear.

The tip jets are supplied with pre-heated air from the turbine area of the main engines. Thrust is approximately 1,000 lbs.

Fairey is experimenting with silencers in an effort to reduce the noise-level of the jets without sacrificing power. Experimental silencers have produced attenuation from 113 db at 200 ft. to the target figure of 9 db, a level comparable to small, piston-driven helicopters.

How They Compare

| | S55F | S58F | V44B | V44BT | S-61 | V-107 | Rotodyne |
|---|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|------------------------|
| Maximum Weight | 7,200 | 12,700 | 14,350 | 15,000 | 18,435 | 17,200 | 50,000 |
| Less empty weight | 5,530 | 9,100 | 10,592 | 10,442 | 11,308 | 10,566 | 31,025 |
| Useful load | 1,670 | 3,600 | 3,758 | 4,558 | 7,127 | 6,634 | 18,975 |
| Passenger Capacity (rated—not average) | 7 | 12 | 15 | 15 | 24 | 24 | 65 |
| Engine Type | R-1340-40 | R-1820 | R-1820 (2) | T-58 (3) | T-58 (2) | T-58 (2) | R. R. Tyne (2) |
| Horsepower (max. rated) | 600 | 1,525 | 1,425 | 1,700 | 2,100 | 2,100 | Plus tip pressure jets |
| Fuel Type | Gasoline | Gasoline | Gasoline | Kerosene | Kerosene | Kerosene | Kerosene |
| Fuel Consumption—gals./hour | 50 | 116 | 106 | 183 | 220 | 212 | 500 |
| Block Speed (S-55, S-58, V44B, V44BT with floats) | 51 | 58 | 58 | 82 | 100 | 100 | 132 |
| Aircraft Cost Plus 30% spares | \$150,000 45,000 | \$275,000 83,000 | \$336,000 101,000 | \$445,000 134,000 | \$713,000 214,000 | \$588,000 176,000 | \$1,316,000 395,000 |
| Total | \$195,000 | \$358,000 | \$437,000 | \$579,000 | \$927,000 | \$764,000 | \$1,711,000 |
| Less 15% residual value | 29,000 | 54,000 | 66,000 | 87,000 | 139,000 | 115,000 | 257,000 |
| Net depreciable value | \$166,000 | \$304,000 | \$371,000 | \$492,000 | \$788,000 | \$649,000 | \$1,454,000 |
| Hourly Operating Costs | | | | | | | |
| Flight crew salaries | \$ 24.83 | \$ 44.31 | \$ 43.31 | \$ 45.91 | \$ 60.80 | \$ 60.80 | \$ 50.00 |
| Fuel and oil | 10.69 | 25.55 | 27.28 | 39.01 | 45.21 | 43.63 | 75.00 |
| Total | \$ 35.52 | \$ 69.86 | \$ 70.59 | \$ 84.92 | \$ 106.01 | \$ 104.43 | \$ 125.00 |
| Direct Maintenance | | | | | | | |
| Labor and materials | 46.75 | 53.55 | 54.00 | 65.00 | 78.60 | 71.00 | 124.00 |
| Total Variable Direct Costs | \$ 82.27 | \$ 123.41 | \$ 124.59 | \$ 149.92 | \$ 184.61 | \$ 175.43 | \$ 249.00 |
| Daily Depreciation 5 years | \$ 91.00 | \$ 167.00 | \$ 203.00 | \$ 270.00 | \$ 432.00 | \$ 356.00 | \$ 797.00 |
| Insurance at 7% | 31.00 | 57.00 | 69.00 | 90.00 | 145.00 | 121.00 | 273.00 |
| Total | \$ 122.00 | \$ 224.00 | \$ 272.00 | \$ 360.00 | \$ 577.00 | \$ 477.00 | \$ 1,070.00 |

Local Carriers Eye New Subsidy Plan

CAB joins small lines in study of proposal aimed at initiating more equitable compensation. Hope problems of each carrier can be dealt with on a built-in profit incentive basis.

By Robert Burkhardt
Transport Editor

Ten years ago the local service experiment was just getting started with eight "feederline" carriers operating under their new Civil Aeronautics Board certificates. Reporting the first year's traffic figures in April, 1947, AMERICAN AVIATION observed that "it is a little early to determine just how substantial is the demand for air service linking smaller communities." Today, thirteen healthy, fast-growing local service airlines are daily giving proof that such a demand exists.

Last year, 4,263,000 passengers were carried, a tenfold increase from the 426,000 carried in 1948. As a result, the CAB is preparing to loosen its apron strings and let the local service airlines take over more of their own management responsibilities.

Federal subsidies were the key to early feederline operations and wise use of subsidy is today the key to the healthy growth of the local service airline industry. Subsidy payments are awarded only after detailed examination of each carrier's operations; this is the way it was ten years ago, and the basic technique of determining each airline's basic break-even need has not changed.

A new technique is now in the making. In a joint airline-CAB project with three basic objectives: improving service to the public, reducing subsidy needs, and strengthening the financial sinews of the local service carriers.

Present practice is to fix temporary subsidy rates based on the reported break-even need during the previous 12-month period. One of the difficulties with this method is that in times of rising prices, the actual break-even need is almost always greater than that estimated. Carriers who expect inflation to continue are reluctant to accept a final subsidy rate and prefer to have their subsidy determined on a temporary, year-to-year basis despite the many financial uncertainties.

Under the present practice, if the Board finds that a carrier has high costs in a particular expense category, these costs are disallowed, no matter whether

the carrier's overall cost level is reasonable or not. For example, if CAB finds a carrier had high maintenance costs, these would be disallowed even though the carrier had exceptionally low general and administrative costs, and even if the overall cost level were reasonable in comparison with the other local service lines.

This means that a carrier presently is penalized in those accounts where expenses are high. At the same time, there is no compensating reward if expenses in other categories are low. More important, a carrier can suffer substantial cost disallowances even if overall operations are economical and efficient.

Both the Board and the carriers now believe that subsidy should be based on overall efficiency, for the present practice is both inequitable and unsound. It is inequitable because it penalizes high cost but does not take into account low costs. It is unsound because in view of the small profit margins permitted local service carriers, profits can be destroyed by small expense disallowances. Moreover, there is no incentive under the present subsidy plan for carriers to strive for exceptional low costs or operating efficiency.

The new plan is designed to take care of this problem by offering each carrier a set of built-in profit incentives for outstanding performance. Both CAB and the carriers are working on details of the new proposal with one

of the country's more skillful economic analysis groups, United Research, Inc., commissioned to study the plan and make constructive suggestions.

At the heart of this new idea is the expectation that the carriers and CAB can agree on a norm for local service carrier plane-mile cost. This benchmark cost figure would then be used in a subsidy payment formula which would allow each carrier a fair profit, provided the established norm was met. If exceeded, a sliding scale of added profit would be allowed, based on a return on investment.

This question of a "fair profit" is attacked from two different points of view: a fair share of the income which should be retained as profit—assuming efficient operation—and a fair return on the money invested in the business by the stockholders. In the plan now under consideration, these two ideas on profit—which in the past have led to many long drawn-out, technical arguments between the carriers and CAB—are ingeniously combined.

The fair share of income, which should be considered profit, is included as a part of the plane-mile cost. As income increases, this profit possibility also increases. In addition, under the incentive part of the plan, net profit, after costs, would be shared between the carrier and the government, according to the following table:

| Profit after Taxes as a Percent of Investment | Proportion to be: Retained by Carrier Returned to Govt. | |
|---|---|-----|
| 10% or less | 100% | 0% |
| 10-20% | 50% | 50% |
| 20-50% | 25% | 75% |
| Above 50% | 10% | 90% |

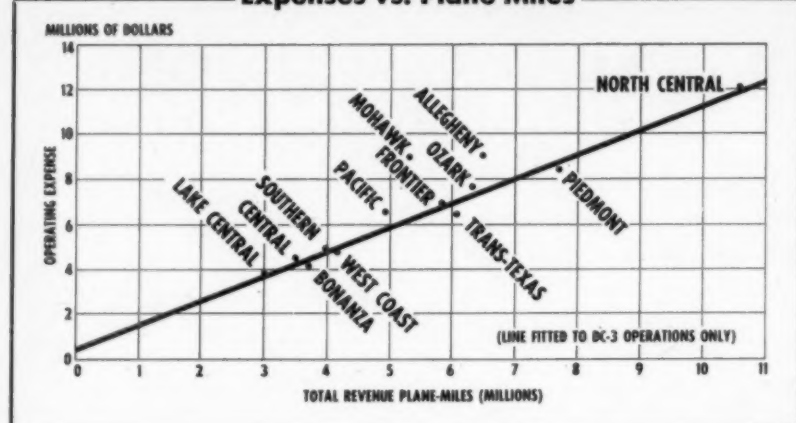
This admixture of profit possibilities would enable a local service carrier to improve its return on capital—by sharpening up efficiency. At the same time, the carrier could increase the volume of profit on sales—by building traffic and improving load factors.

Another problem the CAB and the carriers will have is relating expenses to total revenue plane miles operated. The graph shown on following page illustrates a direct relationship between the two, but it also indicates that some carriers have relatively higher costs for the comparable mileage flown. Those with costs above the median line would not do as well as will those whose costs are below the median line; those below the line would fare better and be

The following AMERICAN AVIATION compilation shows the dynamic growth of the local service airlines during the past ten years:

| | 1948 | 1958 |
|------------------------------------|---------|-----------|
| Cities served | 214 | 516 |
| Cities served exclusively | 122 | 283 |
| Unduplicated route miles | 10,754 | 35,586 |
| Planes in service ... | 63 | 242 |
| Plane miles flown daily | 45,944 | 198,000 |
| Seat miles averaged daily .. | 887,512 | 4,914,000 |
| Number of employees | 2,363 | 9,045 |

Expenses vs. Plane Miles



allowed to retain a greater part of their total income as profits.

CAB proponents of the new plan say the immediate advantages would be fourfold: (1) it is closer to a normal business operation, with management given greater discretion in the conduct of their affairs; (2) carriers will be able to improve earnings without increasing subsidy; (3) the government will have a better control over subsidy payments and will be able to determine in advance what the subsidy cost will be for any particular route segment; (4) paperwork and administrative overhead will be reduced for both CAB and the carriers, once the basic norms are determined.

Joseph P. Adams, executive director

of the Association of Local and Territorial Airlines, summarizes the hopes of his members more directly:

"The present subsidy mail rate system is the original 'Fly now, pay later' plan and with practically all local service carriers on temporary rates, the lateness of the payments makes for economic instability.

"Thus the announcement that the Civil Aeronautics Board intends to improve the subsidy mail rate procedures applicable to the local service industry is of great significance. This program will clear up the chaotic condition presently highlighted by open rates, temporary rates and interminable periods of negotiation between the Board and the carriers."

McNeil Challenges Converse's Control of Bonanza Air Lines

The first battle for control of a local service airline is under way.

L. G. McNeil, one-time board chairman of Bonanza Air Lines, says he is "dissatisfied" with the present management and will try to change it.

Suing to inspect BAL's stock records and ledger, McNeil said he wants to communicate with stockholders "for the purpose of gaining control . . . through stock purchase and stock control, and to obtain proxies from said stockholders so as to obtain new management . . ."

BAL's present management team is headed by board chairman and president Edmund Converse, organizer of the company in 1945.

With the annual stockholders' meeting only five weeks away, on May 4, the proxy fight may be intense. BAL has 849,000 shares outstanding; 470,000 of these were issued last June. Converse holds 211,000, or almost

25%. McNeil, who resigned as board chairman in April, 1958 and as a director last month, held about 65,000 at the end of 1958.

Converse warned stockholders this month that a "dissident group" was being formed to try to place control "in the hands of persons having little or no knowledge or understanding of the affairs of your company. The desire of these persons to seize control at this time . . . is indeed a tribute to the achievements of your present management."

Last September, McNeil was critical of Converse following removal by the board of directors of Mrs. Florence Murphy as vice president and secretary of the company. Mrs. Murphy had claimed Converse removed her authority and responsibility, but the board let her go and gave the president a vote of confidence. Whether Mrs. Murphy is associated with the proxy

controversy has not been made public.

McNeil as yet has issued no statements detailing his dissatisfaction with the way BAL is being operated. Representatives of the present management, when questioned by AMERICAN AVIATION, said they are ready and willing to stand on the record and are confident of stockholder support. The record includes:

Increase during the past six years of 179% in passengers carried to a 1958 total of 183,129, a 175% jump in passenger-miles, 72% gain in route miles, 200% increase in commercial revenue (\$2,844,278 last year). The company has the third lowest break-even need of the local service DC-3 operators.

Purchase of a fleet of six Fairchild F-27s, first of which go into service next week (Mar. 29) on two routes and which are expected to boost traffic 20%.

First airline to get CAB approval (last June) of a government-guaranteed loan to help pay for the new equipment. At that time, BAL also issued the 470,000 shares of stock, which CAB said would provide a "needed" financial cushion.

Recent move into a new administration building next to its hangar at Las Vegas.

National Goes Before CAB To Seek Miami Fare Cuts

A 25% cut in night coach fares on three nights of the week, designed to attract people who now drive to Florida, has been filed with CAB by National Airlines, to be effective Apr. 20.

NAL also asked to omit the family fare discount from jets on the grounds that the plan is not needed to fill up the new planes.

The new night coach fare, which would be operated on Monday, Tuesday and Wednesday, would be slightly over 3¢ per passenger-mile. Typical fares: \$35.10 New York-Miami, \$31.80 Washington-Miami.

NAL senior vice president Walter Sternberg said the experimental tariff is aimed at "the 84% of the population who drive to and from Florida. We know that price is a factor to many of these people . . ."

Principal objective of the family plan is to promote traffic on flights that would otherwise operate with excessive unused capacity, NAL said, adding that experience has shown that such discounts are unnecessary to achieve full jet utilization. Availability of the discount on its jets "has a serious adverse effect on the traffic carried on National's piston-engine aircraft which operate in the same market," it said.

Continental Can First

Lockheed Closes Contract For Purchase of JetStar

Lockheed Aircraft Corp. has announced the first official order for a JetStar. Continental Can Co. will take delivery on a four-engine JetStar not later than January 31, 1961.

Continental, with 140 plants throughout the U.S. and Canada, already operates a fleet of seven multi-engine aircraft.

The Continental JetStar will have four Pratt & Whitney JT12s, rated at 2,900 lbs. thrust. Weighing only 430 lbs., the JT12 has a thrust-weight ratio of 6.75 to 1. Airplane will have a range of 3,000 miles maximum, and 1,900 miles normal. Cabin is air conditioned and pressurized.

JetStar Specifications

| | |
|---|---|
| Maximum speed/altitude | 606 mph at 20,000 ft., TAS |
| Long range cruise speed/altitude | 526 mph at 45,000 ft., TAS |
| Speed for max. rate of climb at S.L. | 368 mph, IAS |
| Landing pattern speeds for 21,000 lb. weight: | |
| Initial approach | 230 mph, IAS |
| Downwind leg | 161 mph, IAS |
| Base leg | 150 mph, IAS |
| Final approach | 138 mph, IAS |
| Touchdown | 110 mph, IAS |
| Stall | 95 mph, IAS |
| ILS final approach speed | 150 mph, IAS |
| Take-off speeds with full internal fuel & 10 passengers, sea level, standard day: | |
| Critical engine failure speed (V_1) | 126 mph |
| Take-off safety speed (V_2) | 149 mph |
| Airspeed limitations | |
| Design dive speed | 489 mph, EAS below 19,000 ft. Mach .93 above 19,000 ft. |
| Never exceed speed | 441 mph, EAS below 20,900 ft. Mach .87 above 20,900 ft. |

Los Angeles Airways Will Get Two Turbo 'Copters

Los Angeles Airways has bought two turbine-powered Sikorsky S-62 amphibious helicopters, to be delivered late this year, for \$200,000 each.

LAA says its present fleet of S-55s is inadequate for the volume of traffic. The carrier has been averaging over 62% of available tonnage on a system-wide basis, and claims it is forced to turn away 25% to 50% of its prospective passengers and cargo, and an undetermined amount of mail.

Company is also tentatively obligated to purchase five twin-turbine S-61s, scheduled for delivery in 1960-61. Both the S-61 and S-62 have T58 engines.

LAA estimates it will put 150 hours per month on each of the new aircraft. This figure is based on the fact that 65% of the parts on the S-62 are interchangeable with those on the currently

used S-55, thus minimizing airframe down time. Present overhaul limit of these S-55 components range from 1,000 hrs. for the rotor head and gear box, to 6,000 hrs. for the blades and hull.

On a run from Los Angeles to San Bernardino, the S-62 will be able to carry 90% more load for the same fuel costs at a 28% greater speed, when compared to the S-55. LAA says the higher takeoff weight of the 62s will cut ton-mile costs by 30% or more.

Army and Vertol Negotiate For Development of YHC-1B

Department of the Army has announced it will negotiate with Vertol Aircraft Corp. for development of the 2-3 ton YHC-1B "Chinook" turbine helicopter.

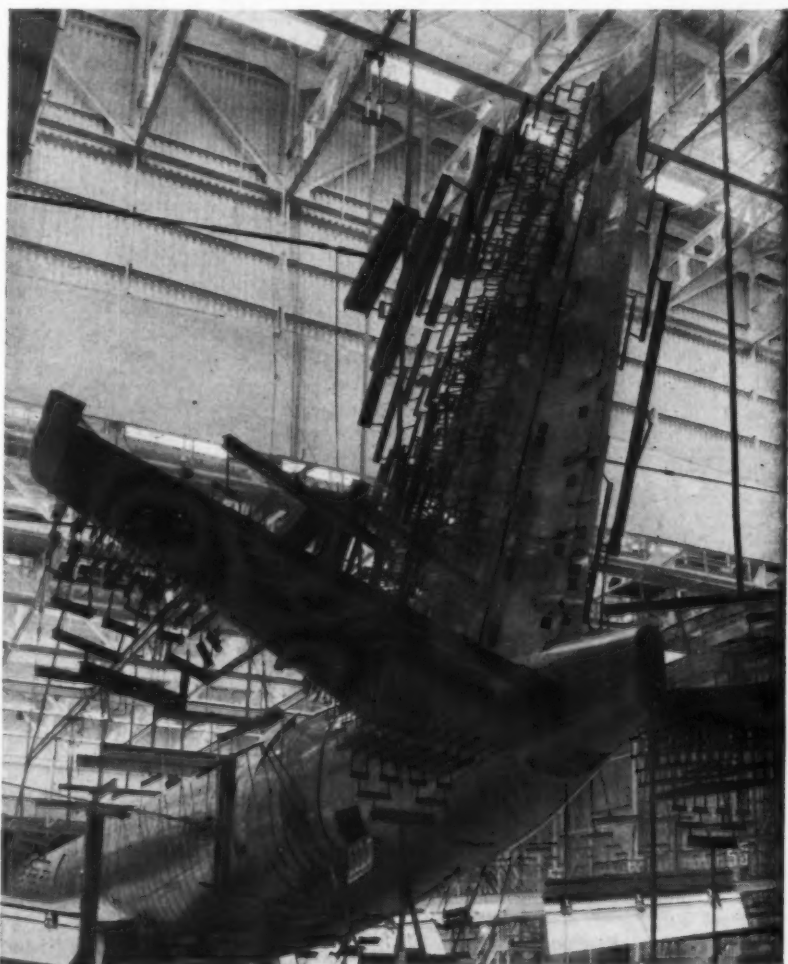
The Army made the decision on

recommendation from the Army-Air Force Source Selection Board that a new helicopter is needed and the announcement was made last week.

Vertol has spent 18 months doing research and design investigations for the aircraft, which resulted in the multi-turbine 107 family. Vertol is now building a field evaluation quantity of the 107 (Army YHC-1).

B-model YHC-1 will retain the rear loading ramp and tandem rotor of the 107. The ramp can be left extended in flight, so that elongated cargo—including missiles—can be carried. The new airplane is expected to hold a maximum of 40 fully-equipped troops.

Although detailed technical specifications have not been completed, the Army has stated the aircraft will have all the latest stabilization and navigational devices to permit all-weather flying.



TESTING FOR EXTREMES of bending, twisting and pulling, which will greatly exceed anything normally encountered in flight, Convair Division of General Dynamics is shown putting its Model 880 through the works at its San Diego plant. Aerodynamic stress of 16-tons is simulated in the operation. The force against this vertical tail surface is distributed over the aircraft structure by a complex arrangement of whiffletrees affixed to the skin surfaces.



Flying Salesmen Paying Off

Haynes' Aero Commander Puts Punch In Pushing Printing Sales

Haynes Lithograph Co., Rockville, Md., like so many firms, is finding a business airplane can be made into an almost indispensable sales tool.

With 15 salesmen and over 250 major accounts, Haynes flies an average of 800 hrs. per year with its 680 Aero Commander, and each week covers a territory from the Metropolitan Washington, D.C. area north to Boston, south to Miami, and west as far as Cleveland and Detroit.

Haynes salesmen used to travel by airline, and thus were forced to pass up many potential customers in small towns off the scheduled routes. Off-line calls had to be made by bus or rented car. "In central Ohio, for example, our salesmen used to require a week to serve an area they now canvass in a single day," says H. B. Kratz, Haynes sales manager. "Now they are free to seek new customers, and have more time to devote to each one."

The airplane is also an aid in the busiest airline centers in the country. One account, located in New York City's suburban Westchester, requires constant liaison with Haynes' Rockville plant. Rather than fly in and out of La Guardia or Newark, the Haynes Aero Commander can use the small field at Westchester, cutting out an hour-and-a-half of surface transportation time.

By scheduling junkets on a regular basis, the company increases the load factor on many flights. "We try to have at least four passengers on each trip, with no dead-head runs," says Kratz. In this manner, seat-mile costs, in-

cluding depreciation and pilot's salary, drop to as low as 6¢, compared to about 7¢ for first class airline fares. On Monday and Tuesday the airplane covers the New York area, with the rest of the week spent in the Midwest and the Florida region.

Haynes' first airplane was a Beech Bonanza, which it bought in 1957. Though flying about 400 hrs. per year, the company found it either needed another airplane, or a faster one which could carry more passengers. The twin-engine airplane which could fly at night and in instrument weather was the final choice.

Air Mod Corp. at Baltimore's Friendship Airport does all the maintenance for Haynes, using progressive overhaul. When time comes for an engine change, Haynes has new ones installed rather than rebuilt ones.

Haynes carries \$25,000 per seat insurance, with employees covered to \$125,000 by Workmen's Compensation. Total public liability carried is \$5 million.

The airplane is flown by Bill Maben, former Capital Airlines and Olin Mathieson pilot.

PacAero Engineering Corp., Santa Monica, Calif. has received an FAA Supplemental Type Certificate (SA-732) for modifying Lodestars and Learstars with an emergency fuel metering kit.

The fuel metering system was developed for Bendix-Stromberg pressure-type carburetors used on Lockheed Model 18 aircraft powered by Wright 1820 engines. Kit is designed to elim-

inate power failures that result from icing or freezing of the impact tubes or the boost venturi, cutting off fuel flow to the engine.

When the pilot notices a power loss, he actuates the system, and an alternate source of fuel pressure is immediately developed. This source bypasses the automatic mixture control and allows an uninterrupted flow of fuel. Mixture is then controlled manually, with rpm, manifold pressure, and flow meter readings used to get required power.

PacAero has provided Lockheed Model 18 owners four ways to have the modification done: sending the carburetor to PacAero (ten days required), a carburetor exchange (three days turn around), PacAero carburetor modification on delivery of the airplane (two days), or modification of operators NTSO carburetor (three days turn around).

... Business Flying Briefs

• A group has been formed on the West Coast to allow private airplane operators to buy airborne electronics equipment on time. Called Nova-Tech Acceptance Corp., the organization would finance purchases over an 18-month period, bringing monthly payments to about \$15. Address is 1721 Sepulveda Blvd., Manhattan Beach, Calif.

• Aero Commander will try to break the world's class C-1d speed record at the World Congress of Flight next month. Pilot will be Jerri Cobb, Oklahoma City, who set the altitude record, and the former distance record. Both those flights were in Aero Commanders.

• Nebraska Aerial Applicators has developed a set of dogtags for use by persons handling toxic spray chemicals. Tags have information about the type of chemicals handled, and the proper first aid to be used.

• FAA's statistics for 1958 show that instrument flight operations en route increased 23% and instrument departure rose 12%.

• De Havilland Canada's civil sales for Beavers and Otters continued strong during 1958 and the company reports Otter deliveries reached a record high. The export market accounted for 87% of civil Otter sales and 68% of civil Beaver sales.

• When asked in a recent survey what leading factors led to the purchase of their business aircraft, petroleum companies listed their reasons as (1) safety; (2) speed; and (3) comfort.

AOC Takes Runway Length Fight to Quesada

How much runway is enough? There is no one answer. With each major advance in aircraft design (and these are coming with increasing rapidity), the demand has been for longer and longer runways. Meantime, many an airport operator has been running out of land, out of available funds—and the end is not yet in sight.

Taking a cue from the Senate Commerce Committee, the Airport Operators Council is calling for a halt. "It is time," the Committee observed, "that aircraft be designed to fit the airport system and not vice versa." Concurring, AOC is now pressing that the conclusion reached by the committee during hearings on extension of federal airport aid be translated into action. Specifically, AOC is asking:

(1) that FAA advise airlines and manufacturers that no aircraft will be certificated which has runway length requirements in excess of those now specified in TSO-N6b.

(2) that the FAA take appropriate steps to encourage the early application of boundary layer control, jet flaps and other high lift principles to transport aircraft.

(3) that under whatever Federal airport aid program may be adopted as a result of current action by the Congress and the President, the FAA plan to make realistic grants to airports which are faced with inordinate capital demands because of the additional runway length and other requirements of the forthcoming series of jet aircraft.

The proposal, made in a letter to FAA Administrator Quesada, coincides in part with that of the Senate committee. To assure that airport facilities and aircraft requirements are kept "realistically in balance," it recommended that "if necessary, this should be done by using the Agency's power under section 603 of the Federal Aviation Act, to refuse certification to aircraft types which will clearly require runway and other facilities substantially greater than those in existence or being planned."

The Senators are not alone among legislators in their thinking. Congressman George Meader (R-Mich.), testifying before the House Commerce Committee in favor of continued federal aid, stated the important consideration is not so much the amount

of the federal commitment, whether it is \$200 million, \$400 million or \$575 million, as that, whatever the amount, "it is spent intelligently with the best and most scientific planning of which we are capable." The characteristics of present and future aircraft cannot be ignored. If they are, he said, "we may approve a system of airports which, while costing both the national and local government hundreds of millions, if not billions of dollars, will retard rather than advance the art and industry of air transportation."

Said AOC in its letter to Quesada: "It is evident that the planned 'matched capacity' concept employed in the Systems Engineering approach is certainly violated when on the one hand the CAA, now a part of FAA, through TSO-N6b, advised airport operators, manufacturers, and airlines to plan on runway lengths not in excess of 8,400 ft. prior to September 1958, and then on lengths not in excess of 10,500 ft.;

but, on the other hand, the rule-making section of the CAB (Civil Aeronautics Board), now a part of FAA, issued Civil Air Regulations SR-422, SR-422a and now proposes SR-422b, which permit and encourage manufacturers to develop aircraft having performance requirements considerably in excess of those figures.

AOC's proposal is bound to arouse the strenuous opposition of both the airlines and the aircraft manufacturers. Both, through their respective organizations, are on record as opposed to any "artificial freeze" on runway lengths.

Drastic as AOC's proposal may appear, it will have served a purpose if it focuses more sharply the need of a systems approach to airways and airport planning and forces action.

With authority over civil and military aviation, FAA has the power and the means to correct this basic deficiency.



Ontario, Calif. Prepares for Role as Alternate Port for Jets

New \$750,000 passenger terminal building at Ontario (Calif.) International Airport, now under construction, is scheduled for completion early this fall. Building will contain 22,000 sq. ft., but is planned for orderly expansion to 60,000 sq. ft. without materially affecting space relationships or circulation patterns, if and when flight schedules increase. Plans also call for extension of main runway to 10,000 ft., although jet aircraft can be handled with present runways. Airport has been

selected by American Airlines as its prime alternate terminal for Los Angeles for turbojet operations. At present, Ontario is served by Western Airlines, Bonanza, and Los Angeles (helicopter) Airways. Terminal is being financed with portion of funds authorized by a revenue bond issue two years ago. Jay Dewey Harnish and Eugene Weldon Fickes, Jr., of Ontario, are the architects of the new airport facility. Thomas E. Flaherty is the Chief Airport Engineer.

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Airlines Accumulating Jet Engine Experience

- Knowledge of transport turbines begins to grow
- Inspectors find surprisingly few big problems
- Airlines and FAA are spotting needed changes

With nearly six months experience under their collective belts, the airlines are beginning to accumulate the first smatterings of turbine aircraft service experience. Some of this experience—higher load factors, speed records, etc.—has been good; some—for instance, the 18,000 fpm nose dive of the 707—has been bad.

But all this background information has been helpful. The airlines and FAA have been able to modify and update the jet maintenance programs, and have spotted a number of needed changes, making an extensive IRAN program become unnecessary. FAA, through its Maintenance Review Board, is keeping close tabs on all service data and is constantly working with manufacturers and operators to extend periods between overhaul and increase component service life.

When the JT3-C6 was chosen to power the 707, the maintenance board set a tentative overhaul period for the engine at 1,000 hrs., pending satisfactory reports from sample overhauls made at 800 and 900 hrs. Samples taken were the first five engines of each operator to reach the prescribed time levels. Pan American is the only user to overhaul so far, with six units torn down. Preliminary reports indicate the engine is performing satisfactorily, and the 1,000 hr. limit may be raised.

JT3 More Experienced

At this time, the Allison 501-D13 has not accumulated as much service time as the JT3. Because present Electra users are sending the engines back to the factory for overhaul, the periods are not quite so rigid as those for the JT3. Overhaul time is 1,000 hrs., but sample overhauls will be made on the first four engines to reach 800 hrs. and the first two to reach 900 hrs. These samples will not be differentiated between users, as in the case of the JT3.

Experience with the Allison has been very encouraging thus far, and only a few isolated failures have been reported.

To date, PAA has had five premature removals—not including the one over the south of France. All of these removals have been termed isolated instances, with no relation be-

tween cause of failure of the engines.

Airframe and component problems on the new transports have shown some difficulties.

One recent engine failure on the 707 was caused by a burned shaft bearing. It was found that a blade had been thrown from the third-stage turbine, and the vibration caused by the unbalance cracked a strut in the nozzle, severing an oil line running through it. The blade loss was at first laid to overheat during operation of the thrust reverser, but tests have shown the turbine temperature with reverse thrust does not exceed that at full throttle.

Water Valve Gives Trouble

The water augmentation system of the 707 has provided several alarming experiences. In one case, all four engines flamed out when the pilot applied power for takeoff. Investigation showed the water valve motor, which had been malfunctioning on the previous flight, had been manually set by the mechanic to operate at 70% power instead of the prescribed 95%. The resulting water flow was too much for the throttle setting, and the fire was literally drowned out.

In another case, two engines flamed out after takeoff when the pilot turned on the deice units. Inspection revealed a leaking water seal which had allowed about a gallon of water to accumulate in the engine nose bullet. When compressor bleed for the deicers was applied, the water was hurled through the engines, and the flame-outs resulted.

As a result of this experience, Pratt & Whitney has recommended that the deicers be turned on one at a time until an improved seal can be developed. Also, the ignitor plugs are to be kept on five minutes after takeoff or until 5,000 ft. is reached. Previously, the ignitors had been used only during starting.

Concern has developed about the influence longer ignitor running times will have on their life-span. The ignitors—two per engine—were originally intended to last the life of the engine, but inspections will now be made each 150 hrs. It is expected the plugs will require changing at 500 hr. intervals.

Five instances of hydraulic malfunctions have been reported on the 707. In a recent instance, the aircraft lost all hydraulic pressure and damaged six wheels and tires in landing. Two of the tires were blown, and the others had to be replaced.

Primary cause of these incidents seems to be failures of the hydraulic pumps, which is not unexpected with the high system pressures. In one case, reservoir failure was sighted as the cause of pressure loss.

Brake problems have also been encountered, and it is felt some type of coolant—such as a water heat-exchanger—may be needed. A number of the brake troubles, however, have occurred during training flights, when the airplane was shooting landings, causing the brakes to overwork.

On the Electra, no one system can be pointed out as causing more than its share of trouble.

Two cases of partial failure of the nose gear oleo have been reported, one causing damage to all four propellers and engine mounts when the airplane veered off the runway.

Several Electras have lost cabin pressure in flight. A fleet campaign has shown 12 of 14 Electras to have cracks in the cabin pressurization ducts. These have been welded, and a redesign of the ducts is being made.

Several electrical malfunctions have been reported, but all have been of a minor nature such as chafed wires and false engine fire warnings.

F-27 Also Suffers

The Fairchild F-27 has had its share of airframe and system problems, too. Four cases have been reported in which a propeller has autofeathered. One of these has been laid to a break in the electrical system, one to deicer failure, and the other two are listed as isolated cases.

Cracks in the dorsal fin and several stringers were reported soon after the airplane entered service, but a fix has been made.

All in all, operators, manufacturers, and the FAA agree there have been surprisingly few serious problems in maintenance and service with the new transports, particularly considering their radical departure from previous designs. Though these airplanes are being watched more closely than their predecessors, they have had no more than their share of woe, and when routine design changes are made, all should become among the safest, most dependable aircraft in the world.



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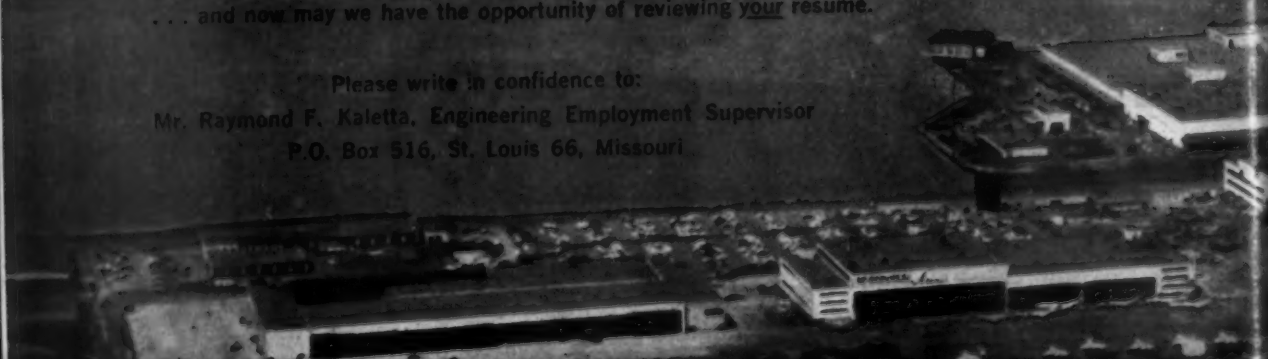
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F4H - Production award winner for Mach 2+ all weather Navy fighter.
Quail - Prime contractor for air-launched Air Force decoy missile.
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FUTURE OBJECTIVES -

McDonnell will continue to diversify and intensify its efforts in all areas of engineering research, development and production, related to air and space vehicles for our Armed Forces.



STATISTICS

Pan Am Maintains Lead in North Atlantic

Pan American continues to be the leading carrier serving the North Atlantic routes, according to an AMERICAN AVIATION compilation of airline traffic for the fourth quarter of 1958. Even with Pan American's record-breaking 61,510 passengers carried during the final three months of the year, the share of transatlantic traffic carried during the quarter by U.S. carriers dropped to the lowest point ever: 41%. Although load factors for the

newer transatlantic carriers are still not up to the industry average, their aggressive sales efforts are proving more and more effective.

Stimulated by the growing popularity of the new economy class fares, introduced in April of 1958, the total number of passengers carried by air across the North Atlantic during the fourth quarter also set a new record. Seat utilization eastbound in the fourth quarter for U.S. carriers was 52.8 percent; westbound, 76.9 percent. In gen-

eral this was better than that of the foreign flag carriers serving the U.S. who averaged 44.2 percent eastbound seat utilization and 61.2 percent westbound. Air France had the best seat utilization of the foreign carriers with 48% eastbound and 71.8% westbound. In the Canadian market, TCA continues to be the leading carrier.

The table below gives a detailed breakdown of traffic eastbound and westbound for each of the transatlantic carriers, as compiled by AMERICAN AVIATION (figures for the full year 1958 will be published in the May issue of "AIRLIFT"):

Fourth Quarter 1958

Eastbound Traffic of North Atlantic Carriers

| Carrier | Seating Capacity | | | | Revenue Passengers | | | | % Seats Utilized | | | |
|-------------------------|------------------|---------------|----------------|----------------|--------------------|---------------|---------------|---------------|------------------|-------------|-------------|-------------|
| | First | Tourist | Economy | Total | First | Tourist | Economy | Total | First | Tourist | Economy | Total |
| U.S. Traffic | | | | | | | | | | | | |
| Air France | 5,306 | 3,906 | 7,002 | 16,214 | 2,680 | 2,037 | 3,066 | 7,783 | 50.5 | 52.2 | 43.8 | 48.0 |
| Alitalia | 1,517 | 584 | 5,082 | 7,183 | 695 | 290 | 1,438 | 2,423 | 45.8 | 49.7 | 28.3 | 33.7 |
| BOAC | 6,897 | 4,190 | 7,744 | 18,831 | 4,601 | 2,489 | 3,932 | 11,022 | 66.7 | 59.4 | 50.8 | 58.5 |
| Lufthansa | 1,783 | 1,504 | 5,727 | 9,014 | 931 | 803 | 3,589 | 5,323 | 52.2 | 53.4 | 62.7 | 59.1 |
| EI Al | 734 | ..... | 3,450 | 4,184 | 145 | ..... | 1,178 | 1,323 | 19.8 | ..... | 34.1 | 31.6 |
| Iberia | 798 | 630 | 1,890 | 3,318 | 205 | 215 | 416 | 836 | 25.7 | 34.1 | 22.0 | 25.2 |
| Irish | ..... | ..... | 4,324 | 4,324 | ..... | ..... | 841 | 841 | ..... | ..... | 19.4 | 19.4 |
| KLM | 3,596 | 1,298 | 8,593 | 13,487 | 1,611 | 395 | 3,109 | 5,115 | 44.8 | 30.4 | 36.2 | 37.9 |
| PAA | 13,673 | 4,300 | 25,176 | 43,149 | 8,670 | 2,206 | 14,499 | 25,375 | 63.4 | 51.3 | 57.6 | 58.8 |
| Qantas | 463 | 645 | 385 | 1,493 | 161 | 257 | 114 | 532 | 34.8 | 39.8 | 29.6 | 35.6 |
| Sabena | 2,106 | 1,589 | 5,691 | 9,386 | 784 | 540 | 2,019 | 3,343 | 37.2 | 34.0 | 35.5 | 35.6 |
| SAS | 4,687 | ..... | 11,321 | 16,008 | 2,219 | ..... | 4,895 | 7,114 | 47.3 | ..... | 43.2 | 44.4 |
| Swiss | 1,921 | 108 | 5,517 | 7,546 | 1,196 | 74 | 2,116 | 3,386 | 62.3 | 68.5 | 38.4 | 44.9 |
| TWA | 4,494 | 1,634 | 14,292 | 20,420 | 2,407 | 461 | 5,291 | 8,159 | 53.6 | 28.2 | 37.0 | 40.0 |
| U. S. Total | 47,975 | 20,388 | 106,194 | 174,557 | 26,305 | 9,767 | 46,503 | 82,575 | 54.8 | 47.9 | 43.8 | 47.3 |
| Canadian Traffic | | | | | | | | | | | | |
| BOAC | 919 | 1,055 | 4,588 | 6,562 | 266 | 295 | 1,889 | 2,450 | 28.9 | 28.0 | 41.2 | 37.3 |
| CPAL | 815 | 873 | 2,874 | 4,562 | 244 | 387 | 1,787 | 2,418 | 29.9 | 44.3 | 62.2 | 53.0 |
| KLM | 829 | ..... | 4,028 | 4,857 | 305 | ..... | 1,739 | 2,044 | 36.8 | ..... | 43.2 | 42.1 |
| TCA | 1,660 | 1,608 | 7,059 | 10,327 | 757 | 665 | 4,933 | 6,355 | 45.6 | 41.4 | 69.9 | 61.5 |
| Canadian Total | 4,223 | 3,536 | 18,549 | 26,308 | 1,572 | 1,347 | 10,348 | 13,267 | 37.2 | 38.1 | 55.8 | 50.4 |
| Grand Total | 52,198 | 23,924 | 124,743 | 200,865 | 27,877 | 11,114 | 56,851 | 95,842 | 53.4 | 46.5 | 45.6 | 47.7 |

Westbound Traffic of North Atlantic Carriers

| | | | | | | | | | | | | |
|-------------------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|----------------|-------------|-------------|-------------|-------------|
| U.S. Traffic | | | | | | | | | | | | |
| Air France | 5,282 | 3,902 | 7,073 | 16,257 | 3,544 | 2,909 | 5,220 | 11,673 | 67.1 | 74.6 | 73.8 | 71.8 |
| Alitalia | 1,328 | 575 | 5,054 | 6,957 | 776 | 340 | 3,230 | 4,346 | 58.4 | 59.1 | 63.9 | 62.5 |
| BOAC | 6,938 | 4,184 | 7,645 | 18,767 | 4,802 | 2,938 | 4,625 | 12,365 | 69.2 | 70.2 | 60.5 | 65.9 |
| Lufthansa | 1,862 | 1,634 | 5,649 | 9,145 | 819 | 1,090 | 4,084 | 5,993 | 44.0 | 66.7 | 72.3 | 65.5 |
| EI Al | 716 | ..... | 3,380 | 4,096 | 222 | ..... | 1,836 | 2,058 | 31.0 | ..... | 54.3 | 50.2 |
| Iberia | 798 | 630 | 1,890 | 3,318 | 288 | 442 | 837 | 1,567 | 36.1 | 70.2 | 44.3 | 47.2 |
| Irish | ..... | ..... | 4,418 | 4,418 | ..... | ..... | 1,657 | 1,657 | ..... | ..... | 37.5 | 37.5 |
| KLM | 3,576 | 1,365 | 8,400 | 13,341 | 1,850 | 987 | 5,078 | 7,915 | 51.7 | 72.3 | 60.5 | 59.3 |
| PAA | 14,263 | 5,120 | 26,714 | 46,097 | 10,865 | 4,092 | 21,178 | 36,135 | 76.2 | 79.9 | 76.4 | 73.4 |
| Qantas | 467 | 685 | 375 | 1,527 | 225 | 278 | 91 | 594 | 48.2 | 40.6 | 24.3 | 30.9 |
| Sabena | 2,036 | 1,521 | 5,527 | 9,084 | 795 | 711 | 2,695 | 4,201 | 39.0 | 46.7 | 48.8 | 46.2 |
| SAS | 4,667 | ..... | 11,914 | 16,581 | 2,165 | ..... | 8,378 | 10,543 | 46.4 | ..... | 70.3 | 63.6 |
| Swiss | 1,935 | 112 | 5,563 | 7,610 | 1,330 | 102 | 3,641 | 5,073 | 68.7 | 91.1 | 65.5 | 66.7 |
| TWA | 4,362 | 1,595 | 14,332 | 20,289 | 3,293 | 1,303 | 10,325 | 14,921 | 75.5 | 81.7 | 72.0 | 72.5 |
| U. S. Total | 48,230 | 21,323 | 107,934 | 177,487 | 30,974 | 15,192 | 72,875 | 119,041 | 64.2 | 71.2 | 67.5 | 67.1 |
| Canadian Traffic | | | | | | | | | | | | |
| BOAC | 949 | 1,065 | 4,694 | 6,708 | 361 | 355 | 1,724 | 2,440 | 38.0 | 33.3 | 36.7 | 34.4 |
| CPAL | 792 | 900 | 2,798 | 4,490 | 350 | 520 | 1,848 | 2,718 | 44.2 | 57.8 | 66.0 | 61.5 |
| KLM | 827 | ..... | 3,743 | 4,570 | 422 | ..... | 2,233 | 2,655 | 51.0 | ..... | 59.7 | 51.1 |
| TCA | 1,655 | 1,497 | 7,027 | 10,179 | 766 | 869 | 4,793 | 6,428 | 46.3 | 58.0 | 68.2 | 61.1 |
| Canadian Total | 4,223 | 3,462 | 18,262 | 25,947 | 1,899 | 1,744 | 10,598 | 14,241 | 45.0 | 50.4 | 58.0 | 54.9 |
| Grand Total | 52,453 | 24,785 | 126,196 | 203,434 | 32,873 | 16,936 | 83,473 | 133,282 | 62.7 | 68.3 | 66.1 | 65.5 |

CAB Shoots at ATA

Orders full investigation
in 'interest of public'

In a surprise move, CAB has started an investigation of the Air Transport Association.

CAB said it was in the general interest of the public to "institute a general inspection and review of the activities and practices of ATA . . . to determine whether the Board should continue its approval of the organization of ATA . . . and, if so, whether such approval should be made subject to further conditions."

It also said ATA and its members will be required to submit detailed information on the organization, and indicated it was particularly interested in the financial structure.

The Board wants to "determine to what extent, if any, the large carriers control the actions of all carriers through . . . ATA" and said it would look at the extent to which the requirement that voting rights be dependent on annual ton-miles flown gives large carriers a control advantage.

ATA and its members were ordered to show cause why CAB should not amend its approval of ATA's articles of association to require extensive reporting provisions, including: each resolution adopted by ATA's directors; all yearly dues and assessments; summary of the yearly budget; full minutes of all meetings of directors and members; all opinions of the director of Air Traffic Conference's enforcement office; lists of all files destroyed since Jan. 1, 1956 by ATA and its members relating to ATA activities.

Pan Am, Panagra, Grace To Face Antitrust Suit

The five-year-old antitrust suit against Pan American World Airways, W. R. Grace & Co. and Pan American-Grace Airways has finally been set for trial.

Hearings will open May 4 before Judge Thomas Murphy in Federal District Court, New York. PAA and Grace each own 50% of Panagra's stock.

When the Justice Dept. originally filed the case in early 1954 it charged that the two stockholders violated the Sherman Antitrust Law. The suit is aimed at divesting PAA and Grace from their ownership of stock in Panagra and enjoining all the parties from engaging in conduct to restrain or monopolize air transportation.

The Justice Dept. alleges PAA and Grace "formed Panagra to exclude the establishment of an independent competitive airline which could compete

with Grace's parallel steamship route extending along the west coast of South America, or which would compete with the airlines operated by Pan American."

There have been unsuccessful attempts over the past several years to change the 50-50 ownership of Panagra. In 1954, CAB recommended establishment of one independent carrier to operate the routes of Panagra and Braniff Airways. Negotiations between Braniff and the owners of Panagra on a possible merger were not successful.

Philippines File Notice To Terminate Bilateral

The Philippine government has given the required year's notice that it intends to terminate its bilateral civil air agreement with the U.S. Washington officials had no explanation for the unexpected action.

The agreement, signed in 1946, granted Philippine carriers traffic rights at Guam, Honolulu and San Francisco.

Quesada Okayed Despite Engle's Slight Protest

Elwood R. Quesada was confirmed by the Senate as Administrator of the Federal Aviation Agency.

Sen. Clair Engle (D-Calif.), a member of the Senate Commerce Committee, although expressing some "misgivings," said he had been unable to find, in Quesada's conduct as a temporary appointee, "objectional action which would justify opposing his confirmation."

He added, however, that Quesada has a military background and "what we would like to know is how far (he) intends to go in letting the military dominate the thinking in the FAA." Thousands of pilots in general aviation "share my concern regarding Gen. Quesada's views with respect to the importance of general aviation," he said, foreseeing the possibility of regulations and requirements for safety equipment becoming heavy enough to ground this segment of the industry.



Doman and Turola Sign Pact for LZ-5 Production

License production of the Doman LZ-5 eight-place helicopter will begin immediately in Italy, Glidden S. Doman, president of Doman Helicopters disclosed in a letter to stockholders. At the same time, Doman revealed details of a two-way arrangement under which Doman Mediterranean of Rome will hold European sales rights to the helicopter and Doman International, Inc. will be set up to handle sales in all other areas. Italian production will be handled through Doman Mediterranean by an undisclosed firm.

As part of the agreement, Doman will buy out the one-half interest

owned by Fleet Mfg. Ltd. (Canada) and rename the present Doman Fleet Helicopters, Ltd. as Doman International. Doman Helicopters meanwhile will obtain royalty income from the Italian production and sales and will hold stock in Doman Mediterranean.

The LZ-5 planned for production will sell for less than \$100,000. It will be powered by a 525-hp Lycoming SO-720 engine derated to 400-hp continuous rating. First deliveries of the helicopter will be promised for early 1960. Doman Mediterranean is located at Via Torino 40, Rome and is headed by Raoul Turola, president, who negotiated the agreement with Doman.

Philosophies Clash

American and Eastern speak on serving small points

Directly opposed philosophies concerning service to cities classified as local service points were aired by American Airlines and Eastern Airlines as they laid their opinions before the CAB.

American told Member Harmer D. Denny they intended to ultimately fly nothing but jets between large points and that it would be up to the local service airlines to provide good connecting service between their points and the main trunkline points. AA attorneys declared that for the large carriers to supply this service would be to overlook a good opportunity to strengthen local service carriers.

American received for this "wise and far-seeing" policy the congratulations of Denny. He declared that the possible salvation for some of the local carriers would be to have the trunks turn over points which were not financially profitable to the feeders. He stated that in many cases the cities would be substantial points for the local service carriers.

This sentiment did not fit what East-

ern Air Lines considers its roll in air transportation. EAL spokesmen said the carrier had not only been serving many small points for many years, but had developed many of them and had no desire to pull their service out now. These points now account for 50 of the stops on Eastern's system. The company asserted that it served these cities well and wants to continue to serve them.

Furthermore, Eastern said it has never announced that it would operate only jets.

Douglas Predicts Boost In Air Cargo Business

Airfreight tonnage will surpass weight of passengers flown by 1970, when airlines are equipped with new transports designed primarily as cargo carriers, according to Donald Douglas, Jr., president of Douglas Aircraft Co.

By 1965, with more efficient cargo planes, it should be possible for airlines to reduce direct operating cost to about 4¢ per ton-mile, resulting in a 10¢ ton-mile rate against 21¢ today, he said. Although a 10¢ rate will place airlines in a more favorable competitive position, their share of the total

domestic freight will not exceed one-half of 1%, the potential at that price being 5 billion ton-miles yearly, he added.

Douglas concluded that due to high development costs of modern airfreighters, airlines will have to await increased volume of production generated by military orders before they can afford to re-equip their fleets.

Nonstop to San Francisco Recommended for American

A CAB examiner has recommended that American Airlines be granted nonstop rights between New York and San Francisco, in competition with TWA and United.

Examiner Walter W. Bryan found that introduction of jet equipment in the market will stimulate traffic by 10% and will further accelerate "the present trend toward nonstop travel..." He said Northwest Airlines' application for similar rights should be denied because an entire new route segment would be required.

On diversionary effects, Bryan said AA, which must now stop at Chicago on the route, would be better off by about \$12 million in gross revenues a year for the 1957-60 period with the new rights, while UAL would get \$6 million less and TWA \$5.5 million less.

Japanese and Philippines Finally Sign A Bilateral

Japan and the Philippines brought their drawn-out bilateral agreement talks to a close early this month with the signing of a pact giving the two nations reciprocal landing rights. A draft of the agreement was initialed last October and negotiations have been continuing since then.

The pact provides that either country may operate between Tokyo and Manila, with a stop at Okinawa, but limits the service to two trips weekly for each nation.

TWA Asks CAB for Surcharge On San Francisco Jet Trips

TWA, announcing opening of non-stop Boeing 707 service New York-San Francisco on Mar. 20, asked CAB approval of a \$10 jet surcharge for both first-class and coach. Eastbound flying time is 4 hrs. 40 mins., westbound 5 hrs. 45 mins. TWA's Boeings carry 46 first-class accommodations and 65 coach (compared with American's 68 first-class and 38 coach on New York-Los Angeles).



STALLIONS OF HORSEPOWER stand in a row as they await installation in American Airlines' fleet of Lockheed Electras. These hefty Allison D501-13 engines represent 30,000 shp. Producing 3,750 shp each, 501s have 14 stages of axial-flow compression and four turbine stages. Engine speed during all phases of flight is 13,820 rpm., with propellers which turn at 1,020 rpm. The engine weighs in at 1,750 lbs., giving a power/weight ratio of 2.14.

Tulsans Gave a Hand

City Fathers Spread Out Welcome Mat for AA

Here's how one city has shown its desire to make an airline a respected member of the community.

When American Airlines announced plans to build an overhaul base for its new jets, the city of Tulsa, Oklahoma—site of American's present maintenance depot—expressed a desire to have American to locate the new plant there. American officials were interested since it had a facility there and Tulsa's 10,000 ft. runway is ideal for jet operations.

Under the guidance of Tulsa Airport Authority attorney Remington Rogers, a plan was conceived to aid American in financing construction.

Although Oklahoma law forbids revenue bond financing by municipalities, a 1953 statute does permit cities to become trust beneficiaries. Using this as a lever, Rogers created the Tulsa Municipal Airport Trust, made up of Authority Board members.

The city leased the desired portion of the airport to the Trust, which in turn leased it to American for 25 years with a 25-year option.

The TMA Trust then borrowed \$20.5 million at 1½% on the open bond market to be amortized over the 25-year period by American's rents.

Rent paid on the new base is in addition to the \$35,000 per year American has paid since taking over its present facilities in 1946.

With the opening of the base this month, American now is leasing 240 acres of the 5,500-acre airport.

Braniff Signs Contracts With Five Oil Companies

Contracts have been signed by Braniff Airways with five oil companies to supply more than 140 million gallons of jet fuel.

Deliveries will begin this spring, when Braniff receives its first Lockheed Electra, and extend through 1953. The Texas Co. will furnish kerosene-type fuel at Dallas, Houston, Minneapolis, Newark and New York; Esso Standard Oil at Washington, Miami and Midway and O'Hare, Chicago; Phillips Petroleum at Kansas City; Humble Oil at San Antonio and Continental Oil at Denver.

Contracts will be awarded shortly for an additional 32 million gallons at cities on Braniff's South American system.



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Chula Vista and Riverside, California

Engineers Steaming

FEIA Adds Fuel to Dispute Over Crew Complement

The cockpits of Eastern Air Lines' big transports glowed like nose cones last week end as flight engineers and pilots reached a new fever pitch in their dispute over crew complement.

Cause of the latest eruption was a direct charge by George Petty, president of the Flight Engineers International Association, that a group of Air Line Pilots Association officials is encouraging "airline pilots to violate federal safety regulations."

"These certain pilots on Eastern Air Lines have thrown away the operations manuals and are rewriting them in the cockpit," Petty charged. Citing specific reports from some 200 which he said had been sent in by his engineers, Petty listed as examples supporting his accusation: (1) Captain to Engineer: "Don't wear the headset (radio), you don't need it . . . go in the back if you want to, there's nothing for you to do here;" and (2) "I don't want you to touch a damn thing until I tell you."

The flight engineer's president also attributed to Eastern's captains and copilots actions which he declared were positive threats to the safe operation of the aircraft, but he tempered his declaration somewhat with the admission that only a "hard core" of the pilots were commanding their aircraft in a manner that endangered safety and efficiency. Most of the pilot personnel are flying their planes the way the company intended, he added.

This latest flare-up is generally interpreted as the second round in the

Addition of a fourth crew member on jet transports is a safety hazard and Federal Aviation Agency should back the idea that two pilots and a flight engineer is the safest combination in the cockpit, Flight Engineers International Association told a press conference in Washington.

FEIA president George Petty stated in a letter to FAA Administrator Elwood Quesada that "the new crew member interferes with the performance of duties by required crew members." Present flight decks were designed for two pilots and an engineer and planes were granted certificates based on use of this crew, he added.

The union also asked CAB to halt mail payments to American, Eastern and Pan American because they were, in part, using taxpayers' money "to pay for a featherbedding demand imposed by ALPA."

hassle between engineers and pilots. FEIA feels that it lost ground in recent contract agreements, and particularly resents the addition of another flight crew member, whom they charge adds only another safety hazard to their business.

Commenting on the reports he has received from Eastern's flight engineers, Petty said, "It is interesting to note that we have not had reports of this kind of trouble on any other airline. I urge the Federal Aviation Agency to intervene in this situation to make certain normal operations procedures as established in company flight manuals be followed by all crew members in the interests of public safety."

ALPA Sued By Two Members As Aftermath of Strikes

The Air Line Pilots Association has been sued by two of its members who claim that president C. N. Sayen and treasurer Don Smith used illegal procedures in obtaining strike benefits for Eastern and Capital pilots during recent walkouts of engineers and mechanics.

The suit, filed by two Los Angeles pilots, Lawrence Shapiro, United, and James R. Eads, TWA, centers around a change in the method of determining eligibility and amount of strike benefits made during December while American and Eastern were struck. Ballots were sent to ALPA directors and the change was effected before many pilots were aware of the proposal, it is claimed. One result of the change was that AA pilots received no benefits for the days they were on strike.

Sayen and Smith were alleged to have used improper procedure to gain the vote for the assessments to support the out-of-work EAL pilots, and ALPA directors were charged with exceeding their authority in approving the assessment and the change in method. Eads and Shapiro said that EAL and Capital engineers and mechanics were on strike, not the pilots, and that the latter were not eligible for ALPA strike payments.

Transport Briefs

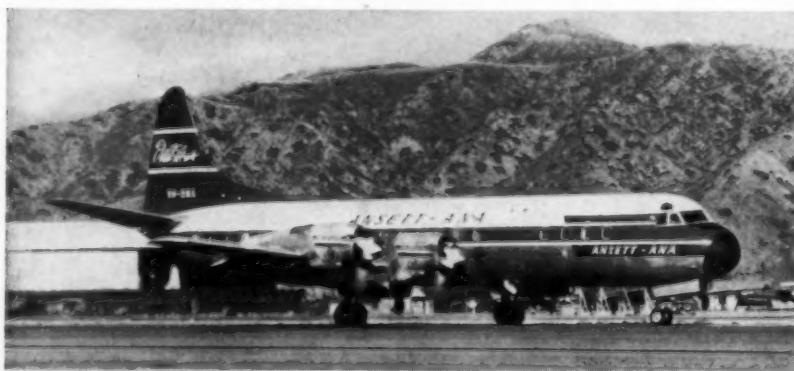
- **American Airlines** will switch its \$6 million advertising account from Lennen & Newell Inc. on June 1. No reason was given for the move; a new agency has not yet been selected. L&N have had the account since 1955.

- **Pan American World Airways** on Apr. 1 starts once-weekly DC-4 all cargo service San Francisco-Manila via Honolulu and Guam.

- **United Air Lines** has signed up 16 major league baseball teams for 442 charter flights this year, totaling some 11 million passenger-miles.

- **San Francisco International Airport** netted \$354,434 on its operations for fiscal 1958, after provision for bond interest and redemption. This compared with net income of \$259,464 the year before. Operating revenues last year totaled \$3,916,667 vs \$3,335,458 in fiscal 1957.

- **Air France** will take delivery of four Caravelle jets on Apr. 15, will receive five more during the remainder of 1959, and 15 in 1960. Daily service



DRESSED UP in the colors of Ansett-ANA, Lockheed Aircraft is conducting production flights prior to delivery of the first Electra to a foreign airline. The Australian carrier selected the Allison Model 501-D13-powered turboprop transport to operate luxury service on its route system spanning the continent. The first plane will be flown to Melbourne this month.

INTERNATIONAL REPORT

By Anthony Vandyk

with the planes will start May 12 Athens to Istanbul via Rome and Milan. Caravelle has 64 tourist and 16 first-class seats.

• **Frederick B. Ayer & Associates** contracted to buy three Convair 440s from Continental Air Lines. Ayer previously bought two of CAL's DC-6Bs.

• **TWA, Braniff Delta and Continental** have placed orders with Lockheed Aircraft Service for a total of 81 flight recorders.

• **Ansett-Australian National Airways** ordered five diesel-driven 400-cycle KVA generators from Leach Corp., Compton, Calif. Order is worth \$60,000. TWA previously placed a \$100,000 order with Leach.

... Financial Briefs

• **Northwest Airlines** reported record revenue and net profit for 1958. Revenue totaled \$102 million, up 22% from 1957; profit was \$5,614,000, up 16.5%. Passenger-miles gained 17% to 1.4 billion.

• **Lake Central Airlines** completed a \$1 million financial program by obtaining a \$750,000 loan from Indiana National Bank and First National Bank of Chicago. First phase of the program was completed last December upon subscription of \$300,000 of 6% convertible subordinated debentures, handled by William Blair & Co., Chicago.

• **Northeast Airlines** lost \$3.6 million in 1958, compared with a 1957 loss of \$4.3 million. Subsidy in 1958 was \$2.3 million against \$955,246 the year before. CAB has now taken the carrier off subsidy.

• **Pacific Northern Airlines** reported 1958 net income of \$361,000 on \$10,368,000 operating revenues against \$261,125 net on \$10,030,332 in 1957.

• **United Air Lines** had record net profit of \$14.3 million in 1958, including earnings of \$13,752,000 and \$540,000 gained on aircraft sales. This compares with 1957 earnings of \$4,866,000 plus \$3,022,000 on aircraft sales for a total of \$7,888,000. Operating revenues last year were a record \$31,961,000, up 13%, while operating expenses of \$286,263,000 were up only 6%. UAL president W. A. Patterson pointed out that strikes and threats of strikes involving major competitors helped UAL's traffic and revenues last year.

The de Havilland Aircraft Company has set an example which other manufacturers might do well to follow. It has appointed its chief test pilot as a member of the Board of Directors. The individual concerned, John Cunningham, particularly merits this appointment. Aged 41, Cunningham has spent over 23 years of his life with de Havilland. He has been the company's chief test pilot since 1946 and has accumulated 2,500 hours as captain of the various marks of Comet.

• **Selling abroad**—One way to sell an aircraft to an airline of a foreign country is to have certain components manufactured in that country. At least that is the opinion of Louis Giusta, President of Sud Aviation. He has revealed that the French manufacturer has promised Belgium's SABCA company a certain amount of Caravelle subcontracting work if SABENA Belgian World Airlines buys the Sud Aviation jet. Giusta has also disclosed that one of the reasons why Sud Aviation had Italy's Fiat company supply the Caravelle's tailplane ailerons and engine parts was that Sud Aviation hopes to sell some of the aircraft to Alitalia. Incidentally, some of the tools and equipment used by Sud Aviation in the production of the Caravelle were those originally installed at Fiat for the license-production of the North American F86K.

• **FAA'S hustling engineers**—One recognized mark of "respectability" for an aircraft is to have U.S. certification. Hence, these are hectic days for FAA's European engineering office in Paris. Headed by Robert Meyersburg, this two-men-and-a-girl office has applications on hand from the manufacturers of some 50 different types of European aircraft. These models range from ultra-light personal aircraft to such big transports as the Vanguard and Comet. Last year U.S. certification was granted for seven European aircraft of widely differing types: the Morane Saulnier MS-760 Paris jet executive aircraft; the Sud Aviation Djinn helicopter; the Bristol Britannia 305; the Sud Aviation Alouette

II helicopter; the Viscount 810; the Piaggio P.166 amphibian; and another Italian amphibian, the Nardi FN-333. Last month the Caravelle took up much of Meyersburg's time. Either he or his assistant, Lou Morada, flew in every one of the flights to accomplish a 50-hour program of service testing with the first production Caravelle. Since the aircraft flew from six in the morning until nearly midnight each day this was a hectic schedule for the two FAA men. The situation was not helped by persistent fog in Paris which played havoc with the program and which made the heavy schedule particularly arduous.

• **KLM boosts pay-later**—Europe's biggest booster for the pay-later plan is KLM Royal Dutch Airlines. The carrier has participated in a special Dutch financing company known as IFM (International Company for Financing of Transport and Trade) which provides the financing for KLM's pay-later plans when local banking facilities are not suitable. KLM now offers pay-later plans in 24 countries. It also has a special pay-later plan for U.S. military personnel serving on overseas assignments and for U.S. civilians employed by the U.S. armed forces overseas. The KLM pay-later plan is available to companies, clubs, etc. as well as to individuals. Furthermore, the person traveling need not be the same as the person making the payments. KLM recently became the first carrier to offer a pay-later plan in Switzerland. Here, a down payment of 15% of the fare is required. The balance has to be paid in a period of not more than 18 months. Interest is at the rate of 3/4 % per month.

• **Comets have experience**—The Comet can well claim to be the most experienced jet transport in the world. The "new" Comets have now logged about the same number of hours as the early Ghost-powered Comet 1s—33,800 hours. As of February 23 de Havilland reported that total Comet hours amounted to 63,000, including 18,100 hours with Avon-powered Comet 2s and 3,400 hours with BOAC Comet 4s. Starting April 1 Comet 4s are to be introduced on the London-Tokyo route.

There's a major change coming in CAB policy covering carriers' bids for military business. CAB has exempted companies from tariff rules; bids to carry military passengers and cargo have been as low as carriers wanted to make them. Now the Board will require tariffs, although it will allow reductions for the military—but not below certain minimums. Lowest rate that can be offered will be 3.4¢ per passenger-mile, producing fares of about \$117, \$124 and \$131 from U.S. to London, Paris and Frankfurt, respectively. There's been a continual hassle about military rates, with airlines accusing each other of cutthroat bidding. Latest involved TWA, which last year got some \$12 million of military business at rates way under its commercial fares. But TWA said it could bid low because it was guaranteed a 100% load factor.

Trunklines' February traffic set a new record for the month. Passenger-miles totaled 1.91 billion against 1.72 billion in same 1958 month. Available seat-miles were up from 3.08 billion to 3.31 billion, and even with this increase the load factor rose from 55.76% to 57.73%.

Airfreight business is up more than 10% in first two months of 1958 over same period last year, despite strikes in early January. Business was soft in first 10 days of February, but came back with a boom.

Don't be surprised if Canadair's 540 twin turboprop shows up on a U.S. local airline route in trial operation within a matter of days.

Clean bill of health was given by General Accounting Office to CAB on handling of the government's guaranteed loan program. GAO, more noted for its critical reports, told Congress that CAB's procedures have been "reasonable" and that it has no recommendations regarding

the program. Ironically, the two men who handled guaranteed loans for the Board—Sam Aldock and I. W. Sirbaugh—have both resigned to accept other positions.

Insiders at CAB look for Joseph O. Fluet to be brought to Washington soon to head a new operations division in the Bureau of Safety. Fluet has been doing an outstanding job in accident investigation as head of the bureau's New York office.

High cost of turbine transports hasn't discouraged airlines from "buying" their own changes. Example: Eastern added some \$50,000 to cost of each Electra, is paying about \$2.1 million per copy.

TWA-Northwest connection at Manila will be ended in late April. Arrangement was made originally to give the lines a round-the-world service, but traffic has been light. So TWA asked CAB to okay a one-year suspension of service at Manila, is also said to be planning other route adjustments.

Déadlock in efforts to revise U.S.-Canadian civil air agreement (Transport Airtrends, Mar. 9) was broken suddenly. Talks in Ottawa resulted in new rights for both nation's airlines. Examples: Canada can operate to Ketchikan, Alaska; International Falls, Minn.; Spokane, Buffalo, and Halifax-New York. U.S. gets Prince Rupert, Calgary, Regina, Ft. William/Port Arthur.

Care and feeding of transatlantic economy class passengers will be easier after Apr. 1. International Air Transport Association released the rules and the "battle of the sandwich" is over. Economy passengers will be served cold plate lunches or dinners instead of a "plain open or closed sandwich." Decision ends bitter arguments over what constituted a sandwich.



LET'S TRY ANOTHER 30

Last month I observed my 30th anniversary with United Air Lines. I left the American Air Transport Association in Chicago in 1929 to join United, and I thought it interesting to photograph how Time Marches On.

The photo shows me with the world's first consolidated air passenger schedule, issued in 1929, and your Official Aviation Guide issue of February 1959, thinking some of your readers and some of my friends would be interested in the picture.

The first schedule came about in this way: When I was chosen by a committee of three of the 21 airmail contractors to form the Air Transport Association and run it, I got a call from Irving Glover, Assistant Postmaster General in charge of airmail, to come down to Washington and he said, "Now you fellows have an Association—you are its manager; it's high time the airlines began to carry passengers and get some form of revenue other than airmail." At that time airmail constituted 97% of total revenue. So I told the members that they better get busy and encourage passenger business with equipment they had.

In 1928 I finally got out the world's first consolidated timetable containing all of the U.S. services in the U.S.A. and to Canada, and various overseas points like Victoria, B.C. where Bill Boeing ran a flying boat; to eastern Canada, and to Key West.

Harold Cray
LaJolla, California

Muskegon Wants To Stay Put

Referring to Airports & Heliports (section of AMERICAN AVIATION of Feb. 9, page 22, column 2, paragraph 5) I don't know where you got the information on political factions and petty jealousies.

The tri-county (Muskegon, Kent,

and Ottawa in Michigan) airport (would mean) having one airport serve 5,400 sq. mi. with approximately 500,000 to 600,000 population . . . No aviation people whatsoever (are) pushing (it) with the exception of Capital Airlines and they admit it is selfish on their part because it would make (possible) one office (instead) of two. Hal Carr, president, North Central Airlines, is not interested in a tri-county airport; Lake Central is not . . . mainly because it would put the airport between Grand Rapids and Muskegon, a distance of roughly 40 mi., or up to 25 mi. from Muskegon, which (with Grand Rapids) is the largest airline user.

The group attempting to promote the tri-county airport (points) to the Tri-City Airport of Bay City, Saginaw, and Midland, Mich., yet . . . those cities are only 12-12-14 miles from the airport and (aviation people there) state that is too far for an airport to be located from a small population. At the same time, the tri-cities each maintain a municipal airport.

. . . James Buckley, Charles L. Barber & Associates, Leigh Fisher, and various air transport institutes and universities (have) advised us against moving the airport that distance from our city (Muskegon). We have paid thousands of dollars, both we and Grand Rapids, to get the best and most up-to-date thinking and we have never been told by any survey group that we should have a tri-county airport. Mr. Bagby, with whom you may not be familiar, appears to be the city planning consultant who is pushing the tri-county airport from Grand Rapids. Two years ago when the County of Muskegon attempted to move our airport to a different location in the county, Mr. Bagby was paid . . . to (state) that Muskegon County Airport should never be moved . . . He is now being paid by someone else and apparently (is saying) what they want him to say. . .

At present, FAA is completing an instrument landing system at (Muskegon County) airport (and is) waiting for us to purchase the land to put in a new \$150,000 to \$200,000 fireball approach light system. (FAA) has accepted our Master Plan and does not, to the best of my knowledge, in any way look forward to ever having a practical tri-county or "tri-airport" of any kind located that far from the city.

. . . you will recall the Midway-O'Hare (Chicago) situation where O'Hare is 17 miles from town. There

(the city) has done everything but dynamite the airlines (to) get them to leave Midway, and O'Hare is a much more open, uncongested airport than Midway.

If it was the best thing for our people, I assure you my Board would agree to a tri-county airport, but we do not feel that it can operate properly.

Jack S. Hakes, Manager
Muskegon County (Mich.) Airport

International Champ?

Another record for Western Airline! "Sidelights" in the February 23 issue eulogizes Roberto Lim and Ed Sullivan, and rightfully so, but Western's District Sales Manager in Calgary, Alberta, Canada, Fred C. Colborne, is the father of eight children. I'm sure you'll agree this relegates Lim and Sullivan to place and show, respectively.

Oak Smith, Dist. Sales Mgr.
Western Airlines
Reno, Nevada

When & Where

MARCH

Mar. 31-Apr. 3—SAE, national aeronautic meeting, aeronautic production forum and aircraft engineering display, New York, N.Y.

APRIL

Apr. 10—Air Freight Forwarders Association, 2nd Annual Meeting, New York, N.Y.

Apr. 12-15—American Association of Airport Executives, annual convention, Savannah, Ga.

Apr. 12-16—Air Force Association, 1st World Congress of Flight, combined with annual Jet Age Conference, Las Vegas, Nev.

Apr. 12-19—Air Line Pilots Association, Annual Safety Forum, Las Vegas, Nev.

Apr. 16-17—Aeronautical Training Society, 17th Annual Meeting, Las Vegas, Nev.

Apr. 18-23—American Society of Tool Engineers, Annual Meeting, Milwaukee, Wis.

Apr. 21-23—International Airline Navigators Council, 9th Annual Convention, Hotel Manhattan, New York, N.Y.

Apr. 23-24—Association of Local and Territorial Airlines, Regional Quarterly Meeting, Bel Air Motor Hotel, St. Louis, Mo.

Apr. 26-30—Airport Operators Council, 12th Annual Meeting, Portland, Ore.

Apr. 27—IATA Permanent Working Group on Restricted Articles, 7th Meeting, Montego Bay, Jamaica, B.W.I.

Apr. 27-29—Aero Medical Association, 30th Annual Meeting, Statler Hotel, Los Angeles.

MAY

May 4-14—IATA, 12th Technical Conference, Hotel Claremont, Berkeley, Calif.

May 7-9—American Helicopter Society, 15th Annual National Forum, Washington, D.C.

May 10-16—Aviation Writers Association, 21st Annual Meeting and News Conference, Washington, D.C.

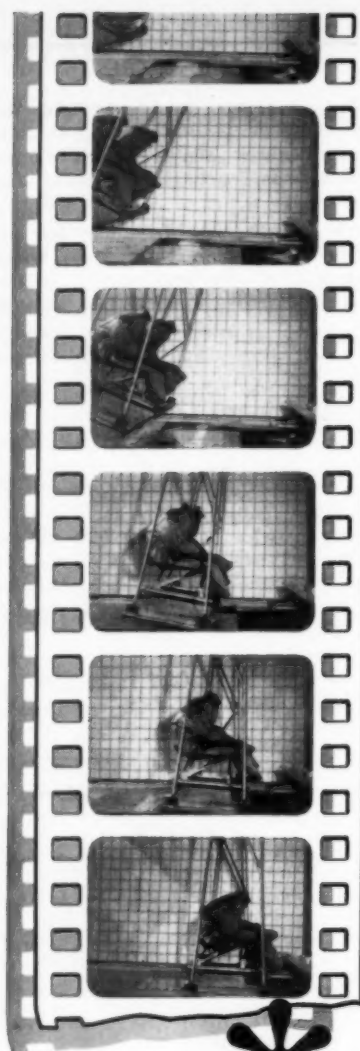
May 20-31—Federation Aeronautique Internationale, Annual Conference, Moscow.

JUNE

June 5-6—Army Aviation of America, annual meeting, Shoreham Hotel, Washington, D.C.

June 12-21—International Air Show, Le Bourget, Paris

June 23-25—Aviation Distributors and Manufacturers Association, 33d Meeting, St. Francis Hotel, San Francisco



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WEST COAST TALK

By Fred S. Hunter

Howard Hughes has bought another Douglas airplane. This time a DC-6B in a de luxe intercontinental layout, fitted with long-range tanks, all overwater equipment, a plush interior and all the other extras. The plane is one of four originally ordered by Olympic Airways, S.A. Hughes picked it up when the Greek carrier later decided it had ordered one too many and entered into a termination agreement on the extra plane with the Douglas Aircraft Co.

• **No. 3 for Hughes**—This makes the third DC-6 Hughes has purchased for his own purposes. The first one, several years ago, was a basic DC-6, which Hughes had hauled across the field at Santa Monica and put in a tent under guard to hide it from prying eyes. It was announced he had purchased the aircraft in connection with electronics experiments in which he was engaged at the time. The plane stayed on the ground in the tent until Hughes was finished with it. Then it was sold to Linee Aeree Italiane.

• **Freighter deal**—A DC-6A cargo job, originally ordered by Riddle Airlines, was taken over by Hughes last year. Again, the plane was towed across the field, but, this time, no tent. It was tied down alongside a weather-beaten Convair 240 Hughes has kept at the Santa Monica Airport for several years. This 240 was originally leased by Hughes from Convair at a rental rate reported to have been \$7000 per month, but in 1956 he took title to the airplane. We understand that the Riddle DC-6A, which seems to have been kept in excellent condition with application of preservatives, regular runups of engines and constant attention, will be sold now that Hughes has acquired the new DC-6B.

• **Jets are tricky**—It may take a little time for Bill Coyle of Air Logistics Corp., to sell all the airlines on the Air-Log trailer system of handling jet engines on-the-ground on rails, but he's getting help from experiences. Pan American has already dropped a J57 out of a sling

at Idlewild, and, at Douglas-Santa Monica, a crane operator dropped a Conway, necessitating its return to the Rolls-Royce factory in England.

• **Wrong-way passengers**—Federal Aviation Agency is completing a survey of 60 airport terminal buildings around the country to develop information upon which future design criteria may be based. One of the things the surveyors discovered was that more than half the people entering the terminal building at the San Francisco Airport were doing so through the exit. With 2000 persons coming into the building during a typical peak hour, the reverse traffic causes no little congestion.

• **New plane problems**—In getting its Boeing 707 jetliner service started off on the Los Angeles-New York nonstop route, American Airlines has had two problems. It has had to disappoint a substantial number of important people because it has not had enough available seats to accommodate all those who wanted to be passengers. And it has had schedule troubles. Part of these has been due to bad weather. Part has been due to the spare-parts problem. For example, a pump in the water-injection system went out on a plane being used for pilot training at New York. A spare was shipped from Los Angeles. But the next day the same thing happened to a plane preparing for scheduled trip out of Los Angeles. Having sent its only spare to New York, AA, in Los Angeles, had to have Boeing rush the part from Seattle before it could make use of the airplane on a trip.

• **Bigger crews**—American Airlines is requiring jet experience in new pilot hirings, and will put them on as fourth-crew members on its Boeing 707 schedules. It recently recalled 90 pilots laid off in January a year ago, but it will have to hire somewhere between 25 and 50 new pilots to fill its jet crew requirements . . . Douglas records show total flight hours logged by its DC-6/7 series of transports are approaching the 12-million mark. A lotta hours.

• **Refunds**—California's aviation fuel tax refunds in 1958 added up to a total of \$2,218,561, mostly to airlines.

CAB Report and Forecast

When the Board earlier this month decided to "inspect and review" the Air Transport Association, reaction of the CAB investigative staff was a collective shudder. Some 170 investigations are currently pending. A number of these, such as the investigations into international air fares, date back to 1944.

So far this year the Board has ordered five new investigations including ATA's. The others are investigations of American Airlines' jet fares, and four applications for renewal of temporary points on the routes of three local service carriers: Central, Mohawk and Allegheny.

• **Reaction of the airline industry** to the Board's ATA order has generally been one of amazement. Most airline officials are taking a wait-and-see attitude until the Board's intentions become clearer. ATA President Stu Tipton told AMERICAN AVIATION that "we will be happy to cooperate with the CAB in undertaking an overall review of the ATA organization, its by-laws and amendments."

In private conversations, Board members say they are pleased that the cry of "witch hunt" has not been raised. "Investigations as such are not bad," one Board member told AMERICAN AVIATION. "ATA has been appearing before us for more than 20 years and we think it is about time we knew more about the association and who controls it."

• **Examiner Ralph Wiser** is very properly replying "no comment" to all questions about his progress in writing the initial decision in the General Passenger Fare Investigation. Callers can easily see from the piles of books and documents on his desk, chair and even the floor, that his task is a most difficult one. In view of the historic importance of Wiser's opinions on airline rate making, his time will be well spent—even though a flurry of exceptions is expected to be filed.

• **Board shorties**—Another historic action was taken earlier this month when the Board decided to establish a floor under military charter rates (see "transport trends"). . . . Having made the decision on how to handle Alaska air carriers in the transitional period to statehood (CAB regulations will stand on intra-Alaska matters until State regulations are issued), the Board expects to take Hawaiian Statehood in stride . . . Speculation continues on who will replace Member Harmar D. Denny when he retires at the end of his term this year; at least two of the

Board's staff members are hoping for the President's nod.

. . . Also at CAB

Japan Air Lines was recommended by CAB Examiner F. W. Brown for amendment of its permit to operate to both Los Angeles and San Francisco and on a new route from Japan to Seattle. Carrier now serves only San Francisco.

Aerovias Q, Cuban airline, was granted an amendment to its permit authorizing operation between the co-terminals Ft. Lauderdale and West Palm Beach and the terminal Havana.

Ozark Air Lines received CAB approval to begin service with expeditious use of airports at Iowa City, Iowa; Madison, Wis.; Omaha, Neb., and St. Joseph, Mo. . . . Frontier Airlines received similar permission at Sterling, Colo.; Kansas City and St. Joseph, Mo.; and Beatrice, Hastings, Imperial, Kearney, McCook and Sidney, Neb.

Chicago Helicopter Airways' final mail rate was set by CAB at \$2,932,557 for the period Apr. 6, 1956 to Sept. 30, 1958. For the annual period starting Oct. 1, 1958, CAB established a final rate of \$3.11 per scheduled revenue plane-mile flown in the month or 1,574 times the number of days in the month, whichever is lower. Subsidy starting on that date is \$1,728,811 a year.

Riddle Airlines was authorized by CAB to continue suspension of service on two route segments at Jacksonville, and at Boston and Cincinnati until Mar. 4, 1960.

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Two Haircuts in Russia

Eating in Moscow . . . Food is bad, music worse

Want to go dining out in Moscow? If you think it's anything like New York, Los Angeles, Paris, Rome and other places that have hundreds of good restaurants to choose from, take another think.

Except for Moscow, the tourist to the Soviet Union has little or no choice but to eat in the Intourist hotel. But even in Moscow it's unlike any other place I know of.

Every tourist has already paid for his food coupons before arriving in the U.S.S.R. Three years ago these coupons were accepted only in the three Intourist hotels in Moscow—the National, Metropole and Savoy. If you went to a restaurant you paid in rubles and the exchange was at the most unfavorable rate of four to the dollar. Not only did your coupons go unused (and they're not refundable) but a dinner cost a lot of money.

But several things have happened to ease the plight of the tourist. One is the new exchange rate of ten rubles to the dollar. Another is the acceptance by most restaurants of Intourist coupons. A third is an increase in the number of restaurants from a couple to perhaps a half dozen plus dining rooms in a number of new hotels.

Memory plays strange tricks. Three years ago when I was on my lonesome solo trip behind the Iron Curtain, I had only one opportunity to eat in a restaurant outside of hotels. This was a special affair given by some government officials for an American who had just bought a shipment of caviar. Along with some press people, I was invited.

The restaurant was the Praga, named for the Czech capital of Prague. Embellished with marble, it had two or three floors and got established right away as the fashionable spot for the elite. Since my dinner was in a private room I didn't get to see much of the place, but I remember that I was entranced by the music of a string group from Armenia or the Caucasus. The instruments were unusual and the melodies were something I had never heard before. Maybe it was the vodka but I wanted to hear more.

So on this second trip to Moscow last fall I had as a major objective a return visit to Praga to hear some more of this good native music. My wife and I roped in for the occasion Paul Niven, who then was CBS correspondent and who lived in the rambling old Metropole.

Niven had two rooms, one for work and recording and the other for living. And I do mean living. Like all other Americans in Moscow he had a refrigerator, hot plate, and an ample supply of

American coffee and canned juices, meat, fruit and vegetables. To exist entirely on the Moscow food economy would be deadly.

When we arrived, Niven broke the news that he had just been given notice by the Soviet government that the CBS broadcasting facilities had been revoked, all because of that somewhat ludicrous and needless CBS TV program in the U.S. about the death of Stalin. The revocation was not against Niven personally, and he had been told he was still persona grata and could remain in Moscow for any other U.S. concern if he wished. But it was still a blow because he was getting in stride. (It should have been obvious to CBS that the U.S.S.R. would retaliate for the Stalin program and opinion was unanimous among Americans in Moscow that the TV show served no purpose.)

Niven knew the Praga but seemed to be at a loss to understand why I was so anxious to go there. He said he had never heard any native music. But we went anyway, and of course I was disillusioned. The only music was from a typical Russian dance orchestra playing western music as loudly as it could, and not very well.

We were lucky to have a table to ourselves. In the U.S.S.R. an empty seat is available to anyone. And if there is no empty table you're seated at a larger one partly occupied. There is no such



Miss Raya Smirnova, left, our Intourist guide, with Mrs. W.W.P. on a height above Moscow River overlooking the Soviet capital.



Photos by Wayne W. Parrish
Ice cream cones outside the Kremlin; this saleswoman works for a government ministry.

thing as a reservation but like everywhere else you can sometimes be favored by the head waiter if there is one.

The Praga has one advantage over the Intourist hotels—it has a somewhat bigger menu. We had a sort of shashlik, a big hamburger kind of thing made up chiefly of beef and pork and not too bad, plus some dry champagne. Things like fresh vegetables and salads are virtually nonexistent.

The Praga was crowded and I noted the very major change in clothing from three years ago. Most of the women were wearing chiffon dresses with designs and colors, and a majority of men were wearing ties. There are still plenty of Russians who consider it a mark of distinction to dress as sloppily as possible, but the women are changing things. A female in a bright new dress doesn't want to be escorted by a guy who looks like a bum. There is a positive trend toward "dressing up," even if styles are a trillion years behind the West.

On another night we went with Paul Niven to the new Peking restaurant, a garishly decorated place with the same menu as the Praga except for the addition of some pseudo-Chinese dishes. Same dreary dance music. Very crowded. On another evening I went with Peter Rubush and Arnold Jensen of SAS to the Aragvi, which has Georgian cuisine including excellent chicken grilled in an unusual way. Best cooking in Moscow and popular with foreigners. But always crowded. The music? For a half hour it was Georgian, then came on the same dreary dance orchestra.

Considering myself to be an old hand at Moscow, I suggested we visit the Lenin-Stalin mausoleum first thing and have that essential out of the way. It was late for the daily opening, and the line was about a quarter-mile long, but we got up front just about the time the line began moving. It seemed to me the crowd was not as somber as three years ago, more like curiosity seekers. The bodies of Lenin and Stalin lay, as always, under a soft light, but there was no black band under the back of Lenin's head as there was three years ago. Are the bodies real? Who knows. But visiting the mausoleum is one of the macabre "musts" for the tourist—there's nothing like it anywhere in the world.

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Aircraft Data Cards

Aircraft Data Cards selected for this issue are the USAF Helio L-28A, Bell 47J, and the Colonial C-2 Skimmer.

The L-28A is the military version of the Helio Courier, and the first U.S.-built STOL to be purchased by the Air Force. It features a larger engine than the earlier Helio models, and has a three-blade propeller. The ejector-tube engine cooling cowl has been removed.

Bell's 47J is the 1959 model in the famous line of Bell helicopters. It has optional metal rotor blades, tinted canopy bubble, and bigger fuel tanks which increase the range by 43%.

Colonial C-2 is the latest business-type amphibian on the market. The C-2 has retracting floats and tricycle landing gear, and has the engine mounted atop the fuselage for minimum water interference.

HELIO H-395 SUPER COURIER

USAF: L-28A



Aircraft Data Card
March 23, 1959

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BELL 47J RANGER

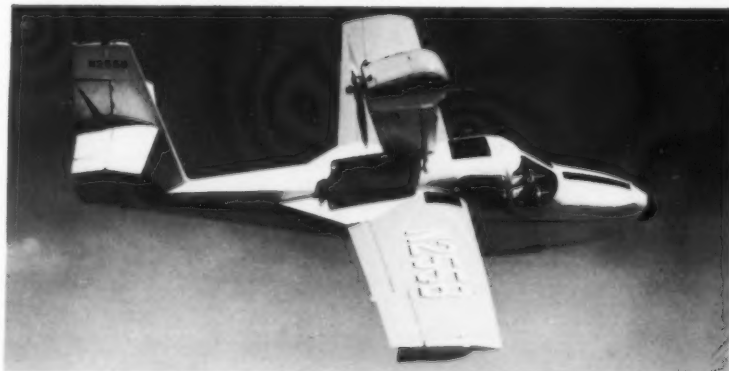
USAF: H-13J
Navy: HUL-1



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COLONIAL MODEL C-2 SKIMMER IV



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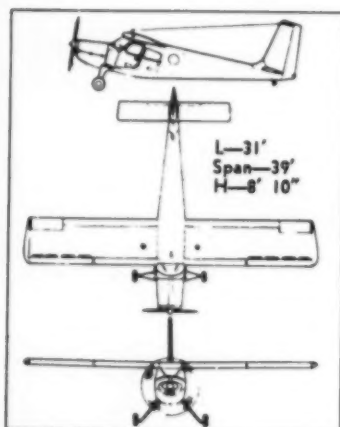
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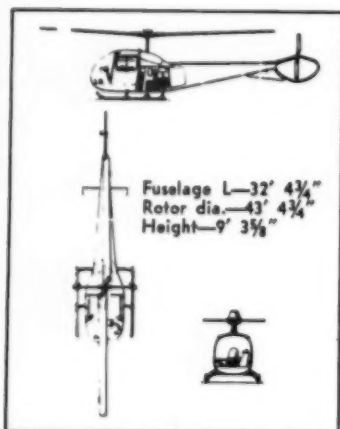
that correspond with numbers appearing beneath items described. Requests will be forwarded to the companies concerned. No additional postage required.



HELIO H-395 SUPER COURIER

TYPE: 5-place, single-engine STOL business aircraft. WEIGHTS: empty—2,012 lbs.; STOL gross—3,000 lbs.; max. industrial gross—3,920 lbs. POWERPLANT: Lycoming GO-480; max. rating—295 hp. PERFORMANCE: max. speed at S/L—176 mph; max. cruise speed—170 mph; initial rate of climb—1,550 fpm; max. range with 60 gal. fuel capacity—842 mi.; takeoff distance over 50 ft. obstacle—475 ft.; landing distance over 50 ft. barrier—493 ft. MFR: Helio Aircraft Corp., Norwood, Mass.

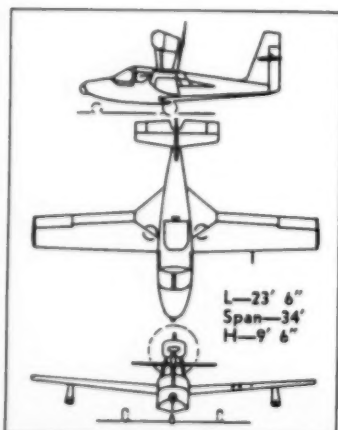
NOTES (for your personal use):



BELL 47J RANGER

TYPE: 4-place, single-engine business helicopter. WEIGHTS: empty—1,640 lbs.; gross—2,850 lbs. POWERPLANT: Lycoming VO-435; max. rating—260 hp derated to 240 hp. PERFORMANCE: max. speed—105 mph; cruise speed—90 mph; initial rate of climb—1,335 fpm; max. range—280 mi. with 48 gal. fuel capacity at gross weight. MFR: Bell Helicopter Corp., Fort Worth, Tex.

NOTES (for your personal use):



COLONIAL MODEL C-2 SKIMMER IV

TYPE: 4-place, single-engine business amphibian. WEIGHTS: empty—1,525 lbs.; gross—2,350 lbs. POWERPLANT: Lycoming O-360; max. rating—180 hp. PERFORMANCE: max. speed—135 mph; cruise speed—130 mph; initial rate of climb—800 fpm; range—500 mi.; takeoff run (land)—650 ft.; landing roll (land)—475 ft.; takeoff run (water)—1,250 ft.; landing run (water)—600 ft. MFR: Colonial Aircraft Corp., Sanford, Me.

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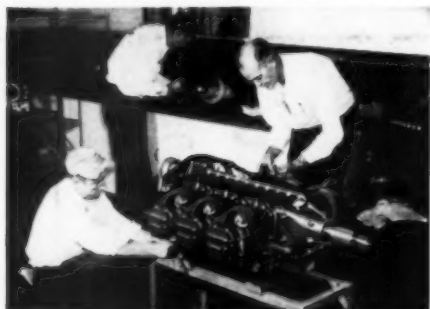
Sky Harbor Air Service at Cheyenne Municipal Airport managed by Lou Domenico. They refuel all scheduled airlines servicing Cheyenne. Photo shows one of two spacious hangars.



Sky Harbor at Omaha's Municipal Airport, managed by Vince De Sciose. Photo shows one of their two hangars, office, and service ramp. Courtesy cars are available at both Sky Harbor bases.



Former Navy pilot Vince De Sciose, Jr. and ex-Air Corps pilot Lou Domenico (right). These partners started at Cheyenne in 1945. Opened up Omaha Base in 1955.



Sky Harbor's A&E mechanics are the experienced "old hands" in the Omaha and Cheyenne areas. They do them all—up to 3500 hp compound turbo-charged engines.



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When Lou Domenico and Vince De Sciose opened shop at Cheyenne in 1945, they started with little but the will to work and the maxim—"experienced personnel, good equipment, and good products will pay off". They are still working hard . . . and the maxim is still their basic creed.

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